TA-VA70

SERVICE MANUAL

AEP Model
UK Model

The mechanical and electrical specifications of TA-VA70 is almost same as TA-VA8ES AEP/UK model.
So this manual contains only the points which differ form TA-VA8ES.
For the informations not contained in this manual, please refer to the STR-GA8ES/GA9ESG/TA-VA8ES service manual (9-960-725-□□) previously issued.

• PART LIST (The difference between TA-VA8ES and TA-VA70)

Page	TA-VA8ES (AEP/UK model)			TA-VA70		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
70	7	4-982-093-41	PANEL (E4), FRONT (BLACK)	7	4-982-093-71	PANEL (E4), FRONT
	27	3-704-366-01	SCREW (CASE) (M3X8)	27	3-710-901-11	SCREW, TAPPING
	31	4-980-109-01	BUTTON (P-M) (BLACK)	31	4-980-109-51	BUTTON (P-M)
72	* 57	4-982-092-11	PANEL, BACK	* 57	4-982-092-51	PANEL, BACK

• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

INTEGRATED AV AMPLIFIER

SONY®

MICROFILM

9-922-794-11

Sony Corporation
Home A&V Products Company

98B051648-1D
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Published by General Engineering Dept. (Shibaura)

STR-GA8ES/GA9ESG/TA-VA8ES

SERVICE MANUAL

US Model
Canadian Model
STR-GA8ES/GA9ESG
AEP Model
UK Model
TA-VA8ES
E Model
STR-GA8ES/TA-VA8ES
Australian Model
PX Model
STR-GA8ES

Photo: STR-GA8ES

Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby ," the double-D symbol ◻◻, "AC-3" and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, rated 120 watts per channel, minimum RMS power, with no more than 0.05 % total harmonic distortion from 250 milliwatts to rated output (USA model only).

Amplifier section

POWER OUTPUT

Stereo mode
STR-GA8ES/GA9ESG:
8 ohms 20 Hz - 20 kHz
120 W + 120 W
TA-VA8ES:
(DIN 1 kHz, 4 ohms)
120 W + 120 W

Surround mode
STR-GA8ES/GA9ESG:
8 ohms at 1 kHz,
THD 0.8%
Front: 120 W/ch
Center: 120 W
Rear: 50 W/ch

Harmonic distortion at rated output
Less than 0.05 %
(Direct Pass)

Frequency response
PHONO: RIAA equalization curve ±0.5 dB
CD, TAPE, DAT/MD, TV, LD, VIDEO 1, 2,:
STR-GA8ES/GA9ESG:
10 Hz - 50 kHz +0 -1 dB
(Direct Pass)
TA-VA8ES:
20 Hz - 50 kHz +0 -1 dB
(Direct Pass)

Inputs (STR-GA8ES/GA9ESG)

	Sensitivity	Impedance	S/N*
PHONO (MM)	2.5 mV	50 kilohms	75 dB* (A, 2.5 mV)
CD,TAPE, DAT/MD, VIDEO 1, 2, 3, TV, LD	150 mV	50 kilohms	82 dB* (A, 250 mV)

* '78 IHF

Inputs (TA-VA8ES)

	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO (MM)	2.5 mV	50 kilohms	78 dB (A, 5 mV)
CD TAPE, DAT/MD, VIDEO 1, 2, 3, TV, LD,TUNER	150 mV	50 kilohms	92 dB (A)

Outputs
REC OUT VIDEO 1, 2 (AUDIO) OUT:
STR-GA9ESG:
Voltage 150 mV,
Impedance 10 kilohms
STR-GA8ES/TA-VA8ES:
Voltage 250 mV,
Impedance 10 kilohms
WOOFER OUT
Voltage: 2 V
Impedance 1 kilohms

– Continued on page 2 –

STR-GA8ES/GA9ESG
FM STEREO/FM-AM RECEIVER

TA-VA8ES
INTEGRATED AV AMPLIFIER

SONY®

PHONES: Accepts low and high impedance headphones

BASS BOOST +7 dB at 70 Hz

Digital signal processor section

Modulation (A/D conversion) High Density Linear Converter

Demodulation (D/A conversion) High density Linear Converter (Pulse D/A converter)

Sampling frequency 48 kHz

Surround
ROOM SIZE
16-step adjustable
WALL TYPE
16-step adjustable
SEAT F/R and L/R
16-step adjustable
EFFECT
20-step
REVERB TIME
16-step adjustable
DELAY TIME
In PRO LOGIC mode:
15.0 ms - 30.0 ms, 0.1 ms step
REAR LEVEL
–50 dB - +10 dB, 1 dB step
CENTER LEVEL*
–50 dB - +10 dB, 1 dB step
Input balance: Automatic

* Only for sound fields with a CENTER LEVEL parameter.

Equalizer
Band
3-band, Bass/Mid/Treble
Turnover frequency
Bass: 125 Hz - 1 kHz
Treble: 1 kHz - 8 kHz
Center frequency
Mid: 435 Hz - 8 kHz
Level
±10 dB, 1 dB step
Slope (Q)
3-step selectable, Wide, Mid, Narrow

FM tuner section (STR-GA8ES/GA9ESG)

Tuning range 87.5 - 108.0 MHz

Antenna terminals 75 ohms, unbalanced

Sensitivity Mono: 18.3 dBf, 4.5 µV
Stereo: 38.3 dBf, 45 µV

Usable sensitivity 11.2 dBf, 2 µV (IHF)

S/N Mono: 76 dB
Stereo: 70 dB

Harmonic distortion at 1 kHz Mono: 0.3 %
Stereo: 0.5 %

Separation 45 dB at 1 kHz

Frequency response 30 Hz - 15 kHz $^{+0.5}_{-2}$ dB

Selectivity 60 dB at 400 kHz

AM tuner section (STR-GA8ES/GA9ESG)

Tuning range With 10 kHz interval*:
530 - 1,710 kHz
With 9 kHz interval:
US, Canadian model:
531 - 1,710 kHz
Australian, E, Saudi Arabia, PX model:
531 - 1,620 kHz

Antenna Loop antenna

Usable sensitivity 50 dB/m (at 1,000 kHz or 999 kHz)

S/N 54 dB (at 50 mV/m)

Harmonic distortion 0.5 % (50 mV/m, 400 kHz)

Selectivity At 9 kHz: 35 dB
At 10 kHz: 40 dB

* You can change the AM tuning interval between 9 kHz and 10 kHz. After tuning in any AM station, turn off the receiver. Hold down the PRESET + button and press the POWER button. All preset stations will be erased when you change the interval. To reset the interval, repeat the procedure.

Video section

Inputs STR-GA8ES/GA9ESG:
VIDEO 1, 2, TV:
1 Vp-p 75 ohms
TA-VA8ES:
VIDEO 1, 2, 3, LD, TV:
1 Vp-p 75 ohms

Outputs VIDEO 1, 2, MONITOR:
1 Vp-p 75 ohms

General

System
Tuner Section (STR-GA8ES/GA9ESG)
PLL
quartz-locked digital synthesizer system
Preamplifier section:
Low-noise NF type equalizer
Power amplifier section:
Pure-complimentary SEPP

Power requirements
USA and Canadian model:
120 V AC, 60 Hz
Australian model:
240 V AC, 50 Hz
European models:
220 - 230 V AC, 50/60 Hz
Other models:
120, 220, or 240 V AC adjustable, 50/60 Hz

Power consumption
STR-GA8ES/GA9ESG:
USA model: 330 W
Canada model: 470 VA
Other models: 380 W
TA-VA8ES:
395 W

AC outlets
STR-GA8ES/GA9ESG:
Australian model:
1 switched, total 120 W
Other models:
2 switched, total 120 W
TA-VA8ES:
1 switched, total 120 W

Dimensions 17 x 6 3/8 x 16 3/4 inches (430 x 160 x 425 mm)

Mass (Approx.)
STR-GA9ESG:
14.8 kg (32 lb 10 oz)
STR-GA8ES/TA-VA8ES:
14.6 kg (32 lb 3 oz)

Supplied accessories
STR-GA9ESG:
FM wire antenna (1)
AM loop antenna (1)
Remote commander RM-VP1 (remote) (1)
Size AA (R6) batteries (2)
RC antenna (1)
IR repeater (1)
Getting Started and Basic Operation Guide (1)
STR-GA8ES:
FM wire antenna (1)
AM loop antenna (1)
Remote commander (remote) (1)
Size AA (R6) batteries (2)
TA-VA8ES:
Remote commander (remote) (1)
Size AA (R6) batteries (2)

Design and specifications are subject to change without notice.

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

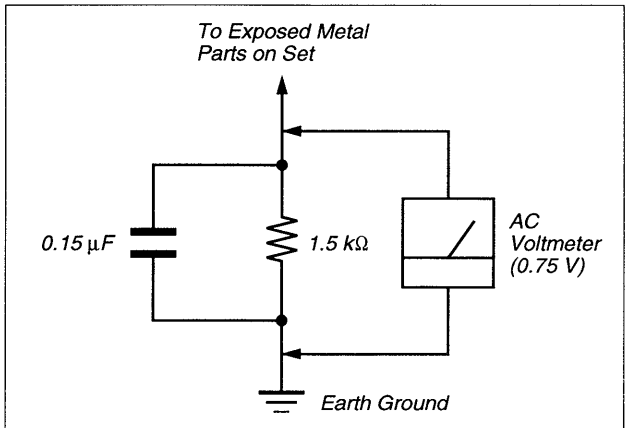
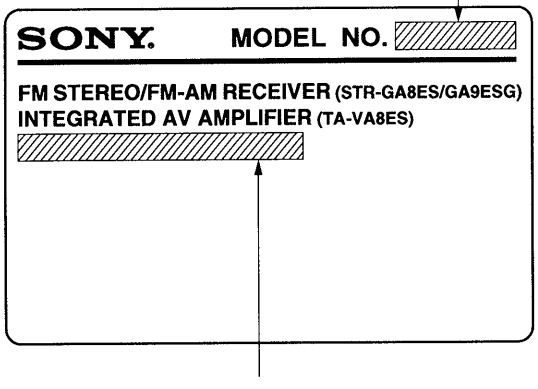


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –

STR-GA8ES
STR-GA9ESG
TA-VA8ES



US, Canadian model : AC 120 V 60 Hz
European model : AC 220-230 V ∼ 50/60 Hz
Australian model : AC 240 V 50Hz
Other models : AC 120 V/220V/240V 50/60 Hz

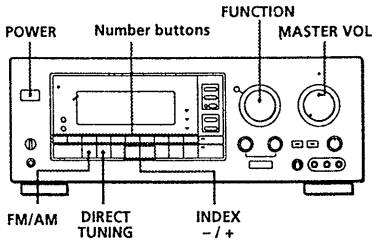
SAFETY-RELATED COMPONENT WARNING!!

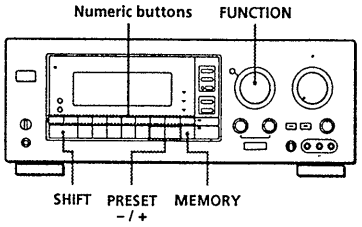
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

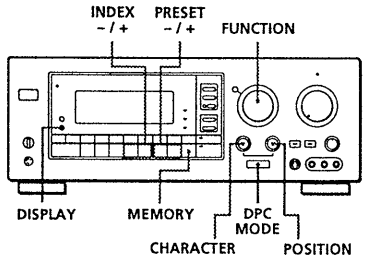
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

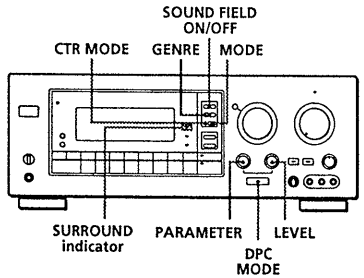
LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

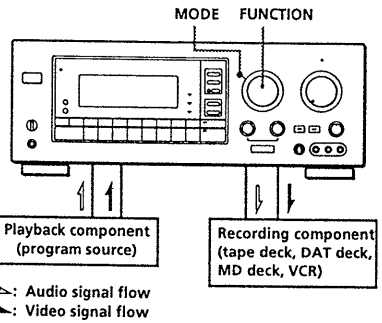
Front Panel Descriptions

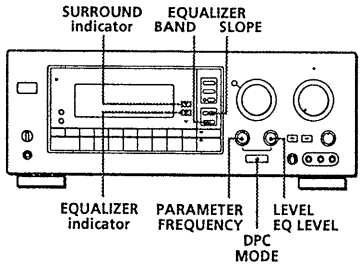




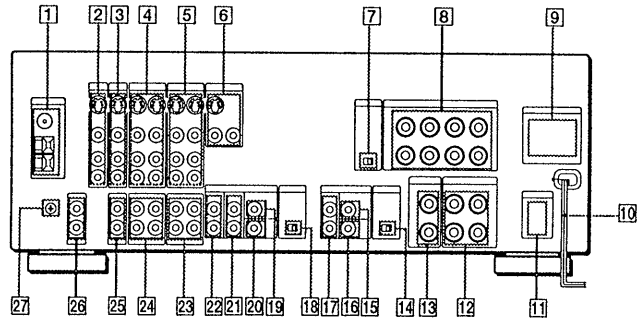






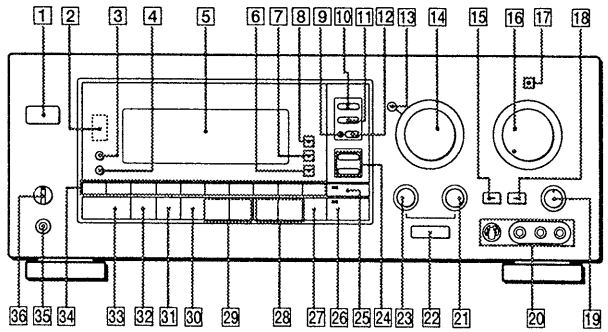


Rear Panel Descriptions



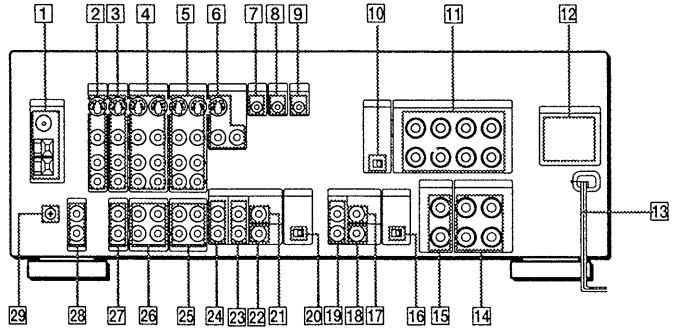
1 ANTENNA (AM/FM)
2 TV/DBS
3 LD
4 VIDEO 2
5 VIDEO 1
6 MONITOR
7 IMPEDANCE SELECTOR (see page 7)
8 FRONT SPEAKERS (A/B)
9 SWITCHED AC OUTLETs (Outlet shape and position varies according to destination)
10 AC power cord
11 VOLTAGE SELECTOR (certain models only)
12 REAR SPEAKERS
13 CENTER SPEAKER
14 POWER SWAP (see page 7)
15 SURROUND OUT (CENTER)
16 SURROUND OUT (WOOFER)
17 SURROUND OUT (REAR)
18 LOW FILTER (see page 7)
19 5.1 INPUT (CENTER)
20 5.1 INPUT (WOOFER)
21 5.1 INPUT (REAR)
22 5.1 INPUT (FRONT)
23 TAPE
24 DAT/MD
25 CD
26 PHONO
27 ⏚ ground terminal

Front Panel Descriptions



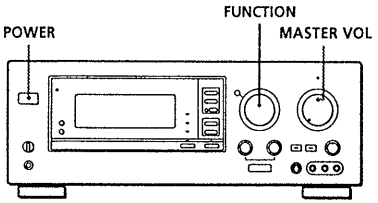
1 POWER switch
2 IR sensor
When recording IR codes from the remote controls of other components, point the remote's emitter at this area during operation.
3 DIMMER button
4 DISPLAY button
Switches the information displayed on the receiver.
5 Display
Shows the program source, function, and tuning frequency, etc.
6 INDEX indicator
7 EQUALIZER indicator
8 SURROUND indicator
9 CTR MODE (center mode) button
10 SOUND FIELD ON/OFF button
Turns the sound fields on or off.
11 SOUND FIELD GENRE button
12 SOUND FIELD MODE button
13 MODE button
14 FUNCTION knob
15 TAPE MONITOR button and indicator
For monitoring audio program sources during recording.
16 MASTER VOL knob
Adjusts the overall volume of all speakers.
17 MUTING indicator
18 5.1 INPUT button and indicator
29 BALANCE knob
20 VIDEO 3 input terminals
For connecting camcorders or video game units, etc.
21 DIGITAL PROCESSING CONTROL: LEVEL/EQ LEVEL/ CHARACTER knob
22 DPC MODE button
23 DIGITAL PROCESSING CONTROL: PARAMETER/FREQUENCY/ POSITION knob
24 EQUALIZER BAND and SLOPE buttons
24 BASS BOOST button
26 DIRECT PASS button
27 MEMORY button
28 PRESET (+/–) buttons
For selecting preset stations.
29 INDEX (+/–) buttons
For selecting station indexes, tunes non-preset stations.
30 FM MODE button
31 DIRECT TUNING button
32 FM/AM button
33 SHIFT button
34 Number buttons
35 PHONES jack
For connecting stereo headphones.
36 SPEAKERS selector
For selecting speakers A, B, A+B, or OFF.

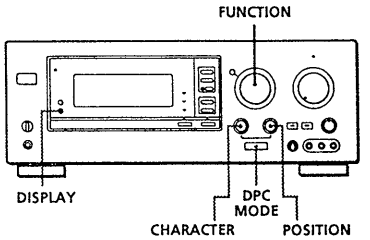
Rear Panel Descriptions

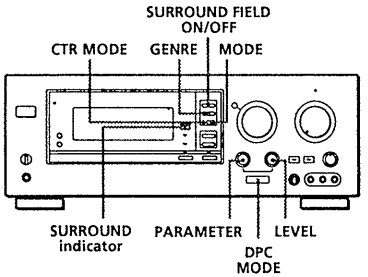


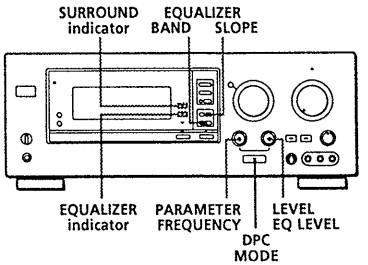
1 ANTENNA (AM/FM)
2 TV
3 LD
4 VIDEO 2
5 VIDEO 1
6 MONITOR
7 RC ANT
8 IR OUT
9 S-LINK (CONTROL-A1 IN)
10 IMPEDANCE SELECTOR
(See page 11)
11 FRONT SPEAKERS (A+B)
12 SWITCHED AC OUTLET(s)
(Outlet shape and position varies according to destination)
13 AC power cord
14 REAR SPEAKERS
15 CENTER SPEAKER
16 POWER SWAP (See page 11)
17 SURROUND OUT (CENTER)
18 SURROUND OUT (WOOFER)
19 SURROUND OUT (REAR)
20 LOW FILTER (See page 11)
21 5.1 INPUT (CENTER)
22 5.1 INPUT (WOOFER)
23 5.1 INPUT (REAR)
24 5.1 INPUT (FRONT)
25 TAPE
26 DAT/MD
27 CD
28 PHONO
29 ⏚ SIGNAL GND terminal

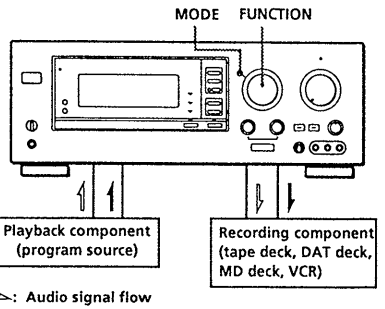
Front Panel Descriptions



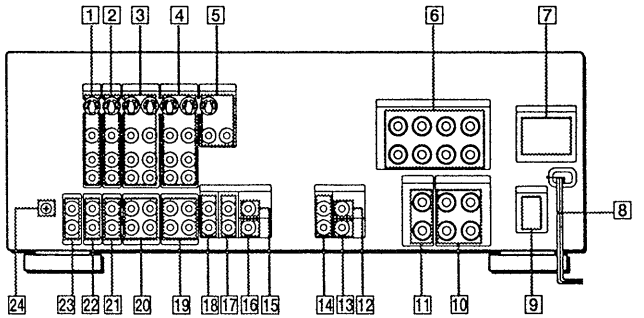








Rear Panel Descriptions



1 TV
2 LD
3 VIDEO 2
4 VIDEO 1
5 MONITOR
6 FRONT SPEAKERS (A/B)
7 SWITCHED AC OUTLETs (Outlet shape and position varies according to destination)
8 AC power cord
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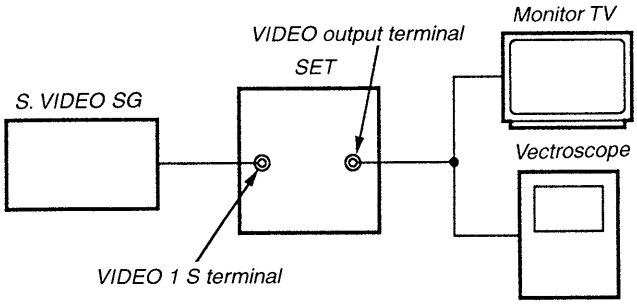
18 5.1 INPUT (FRONT)
19 TAPE
20 DAT/MD
21 CD
22 TUNER
23 PHONO
24 ⏚ ground terminal

SECTION 2
ELECTRICAL ADJUSTMENTS

ON SCREEN SECTION

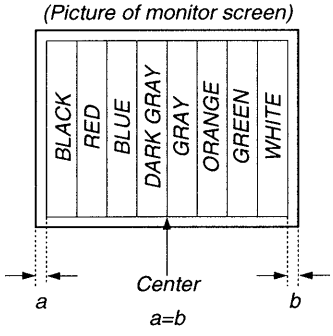
OSD ADJUSTMENT (STR-GA9ESG)

Setting:

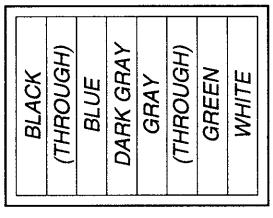


Procedure:

1. Connect the frequency counter to R813.
2. Turn the POWER switch ON, press VIDEO 1 and set the function to VIDEO 1. (The input signal set to OFF.)
3. Turn the POWER switch OFF, keep the "7", "8", "9" buttons depressed at the same time and then turn the POWER switch ON.
4. Check that the screen shows only the color bars, and then adjust CT802 so that the reading becomes 3.5796 MHz±10kHz.
5. Adjust CT801 so that the right edge of the color bars on the screen comes within the frame.



6. The input signal set to ON.

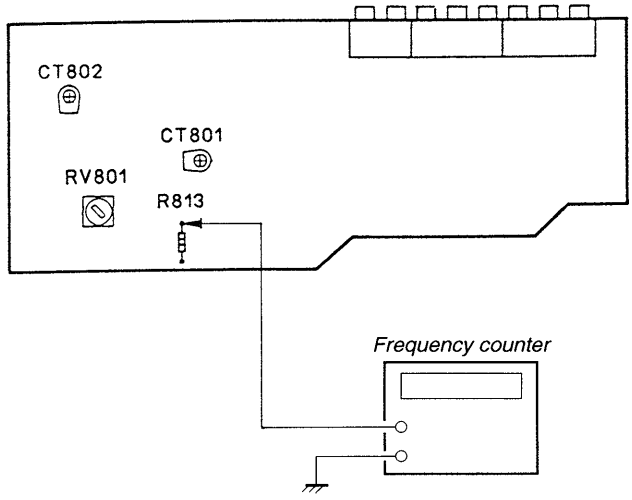


7. Turn the POWER switch OFF, keep the "7", "8", "9" buttons depressed at the same time and then turn the POWER switch ON.
8. Adjust the picture frame as shown in (picture of monitor screen) when using a color bar chart for adjustment with RV801.

INITIALIZATION OF THE MICROCOMPUTER (STR-GA9ESG)

Keep the "4", "5", "6" buttons depressed simultaneously and then turn the POWER switch ON.

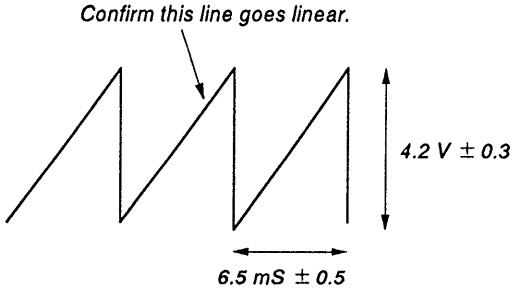
Adjustment Location: VIDEO board (Component side)



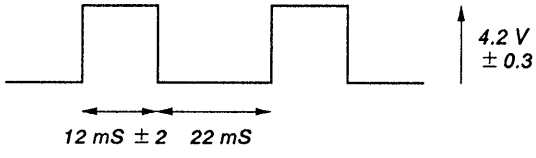
REMOTE CONTROL SECTION

RM-VPI Electrical Adjustment (STR-GA9ESG)

1. Short-circuit A and B without power supply (+3 V).
2. Connector power supply (+3 V).
3. When following waveform appears on XDAC, YDAC, it is good.

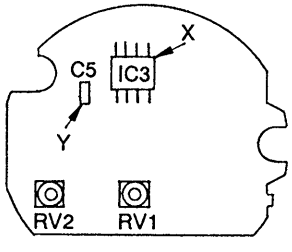


4. Turn power supply (+3 V) off.
5. Remove A and B short-circuit position, short-circuit B and C.
6. Turn power supply (+3 V) on.
7. Set the remote commander at a staudstill. adjust with RV1 so that X (IC3 ① pin) goes +2.2 ± 0.1 V and with RV2 so that Y goes +2.2 ± 0.1 V.
8. AT CLK following waveform appears, it is good.



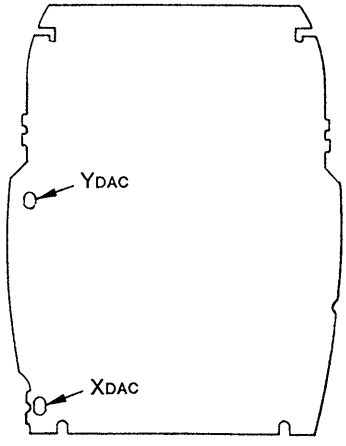
[SENSOR BOARD]

– Component Side –



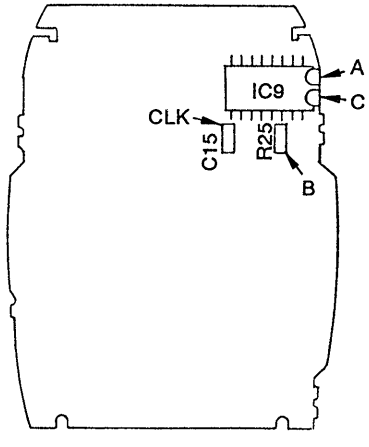
[REMOTE CONTROL BOARD]

– Conductor Side –



[REMOTE CONTROL BOARD]

– Component Side –



SECTION 3
DIAGRAMS

3-1. IC PIN FUNCTION DESCRIPTION

DISPLAY BOARD IC101 MB90673PF-G-164-BND (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	KIN6	I	Key Input
2	KIN7	I	Key Input
3	KOUT0	O	Key output
4	KOUT1	O	Key output
5	KOUT2	O	Key output
6	KOUT3	O	Key output
7	KOUT4	O	Key output
8	KOUT5	O	key output
9	–	–	Not used (Open)
10	SW-SPOFF	I	SP OFF SW input
11	VSS	–	Ground
12	LED-VOL	O	Volume LED signal output
13	LED-STBY	I/O	Standby LED signal input/output
14	–	–	Connected to ground
15	–	–	Connected to ground
16	–	–	Connected to ground
17	–	–	Connected to ground
18	MUTE SR	O	Surround mute (CH-R) output
19	MUTE SL	O	Surrpund mute (CH-L) output
20	RX	I	Data input from OSD microcomputer (IC809)
21	TX	O	Data output to OSD microcomputer (IC809)
22	BUSY	I	Busy signal input from OSD microcomputer (IC809)
23	$\overline{\text{FL CLR}}$	O	FL clear output
24	FL DAT	O	FL data output
25	FL CLK	O	FL clock output
26	FL LAT	O	FL latch output
27	SIRCS	I	Sircs input
28	AVCC	–	Analog power supply (+5 V)
29	AVR+	–	Reference voltage (+5 V)
30	AVR-	–	Reference voltage (Ground)
31	AVSS	–	Analog power supply (Ground)
32	SW-POWER.T	I	Power SW (from S134) input
33	SW-POWER.M	I	Power SW (from S133) input
34	VSS	–	Ground
35	SW-SPA+B	I	SP SW A+B signal input
36	–	–	Connected to ground
37	–	–	Connected to ground
38	–	–	Connected to ground
39	–	–	Connected to ground
40	–	–	Connected to ground
41	MDO	I	Mode select input Fixed at "H" (Connected to +5 V)
42	MD1	I	Mode select input Fixed at "H" (Connected to +5 V)
43	MD2	I	Mode select input (Connected to ground)
44	HSTX	–	HSTX Fixed at "H" (Connected to +5 V)

Pin No.	Pin Name	I/O	Function
45	STOP	I	STOP signal input
46	–	–	Connected to ground
47	–	–	Connected to ground
48	U-RESET	O	Microcomputer reset signal output
49	U-SREQ	I	Microcomputer request signal input
50	U-MREQ	O	Microcomputer master request signal output
51	U-DATA	I/O	Microcomputer data input/output
52	U-CLOCK	O	Microcomputer clock output
53	–	–	Connected to ground
54	–	–	Connected to ground
55	ENC-FNC.B	I	Function (B) encoder input
56	ENC-FNC.A	I	Function (A) encoder input
57	ENC-U/D.B	I	Up/down (B) encoder input
58	ENC-U/D.A	I	Up/down (A) encoder input
59	ENC-L/R.B	I	L/R (B) encoder input
60	ENC-L/R.A	I	L/R (A) encoder input
61	PROTECT	–	Protect (Connected to ground)
62	RESET	I	Reset signal input
63	VSS	–	Ground
64	XO	O	System clock OSC(4.0 MHz)
65	XI	I	System clock OSC(4.0 MHz)
66	VCC	–	Power supply (+5 V)
67	LED-MUTE	O	MUTE LED signal output
68	LED-5.1	O	5.1 LED signal output
69	LED-TAPE	O	TAPE LED signal output
70	LED-DIRECT	O	DIRECT PASS LED signal output
71	LED-BASS.B	O	BASS BOOST LED signal output
72	LED-INDEX	O	INDEX LED signal output
73	LED-EQ	O	EQ LED signal output
74	LED-SURR	O	SURROUND LED signal output
75	KINO	I	Key input
76	KIN1	I	Key input
77	KIN2	I	Key input
78	KIN3	I	Key input
79	KIN4	I	Key input
80	KIN5	I	Key input

SURROUND BOARD IC150 HD6433258-E3 (MAIN CONTROL)

Pin No.	Pin Name	I/O	Function
1	XTAL	O	20 MHz main clock output
2	EXTAL	I	20 MHz main clock input
3	MD1	I	Single chip mode signal input
4	MD0	I	Single chip mode signal input
5	NMI	–	+5 V (+5 V/Ground)
6	VCC	–	Power supply terminal (+5 V)
7	–	–	+5 V (Not used)
8	GND	–	Ground
9	–	–	Ground
10	DATA IN (PLL)	I	PLL input data input
11	–	–	Ground
12	PROTECT IN	I	Protector signal input
13	RESET (DSP,D/A)	O	Reset (DSP,D.F.,D/A) signal output
14	BASS BOOST	O	Bass boost on/off signal output
15	–	I	Ground
16	–	I	Ground
17	DATA (DSP)	O	Serial data (DSP) output
18	–	I	Ground
19	CLK (DSP)	O	Serial clock (DSP) output
20	–	–	Ground
21	–	–	Ground
22	SRDY (DSP)	O	SRDY (DSP) signal output
23	SIAK (DSP)	I	SIAK (DSP) signal input
24	LAT (FRONT D/A)	O	Latch (Front D/A) output
25	SIRQ (DSP)	O	SIRQ (DSP) signal output
26	8dB GAIN	O	Attenuator (Front L/R) signal output
27	4dB GAIN	O	Attenuator (Front L/R) signal output
28	2dB GAIN	O	Attenuator (Front L/R) signal output
29	ALL MUTE	O	All mute signal output
30	-20 dB MUTE	O	-20 dB mute signal output
31	VCC	–	Power supply termial (+5 V)
32	RY-4/8	O	Speaker 4/8 Ω relay
33	RY-DIR	O	Direct pass relay
34	SW-LCF	I	Low cut filter SW input
35	SW-SWAP	I	SWAP SW input
36	SW-4/8	I	Speaker 4/8 Ω SW input "L":8 Ω "H":4 Ω
37	LAT (CE)	O	Latch (function, PLL, C/S volume) signal output
38	DATA	O	Data (function, PLL, C/S volume) signal output
39	CLK	O	Clock (Function, PLL, C/S volume) signal output
40	GND	–	Ground
41	LAT (CENT/REAR)	O	Latch (center/rear) signal output
42	OPD (A/D RESET)	O	OPD (A/D reset) signal output
43	VOL UP	O	Master volume up signal output
44	VOL DN	O	Master volume down signal output

Pin No.	Pin Name	I/O	Function
45	STEREO	I	Strereo signal input
46	AUTO STOP	I	Tuner auto stop signal input
47	TUNER MUTE	O	Tuner mute signal output
48	FUNC MUTE	O	Function mute signal output
49	UCLK	I	Microcomputer interface (master clock)
50	UDAT	I	Microcomuter interface (master data)
51	UMRQ	I	Microcomputer interface (master request)
52	USRQ	O	Microcomputer interface (slave request & data)
53	RY-PoWER	O	Power relay
54	SP (FRONT)RY	O	Front speaker relay
55	SP (CENTER)RY	O	Center speaker relay
56	SP (REAR)RY	O	Rear speaker relay
57	V-E	O	Video E select
58	–	O	Ground
59	RY-HP	O	Headphone relay
60	S-MUTE	O	Surround mute
61	V-B	O	Video B select
62	V-INH	O	Video out inhibit
63	V-A	O	Video A select
64	U RST	I	Reset from master microcomputer

SORROUND BOARD IC401 LC83015 (DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Function
1	P0	I/O	General input/output port A pull up resistor is installed
2	P1	I/O	General input/output port A pull up resistor is installed
3	P2	I/O	General input/output port A pull up resistor is installed
4	P3	I/O	General input/output port A pull up resistor is installed
5	P4	I/O	General input/output port A pull up resistor is installed
6	P5	I/O	General input/output port A pull up resistor is installed
7	ASI1	I	Audio data serial input 1 (Not used)
8	BCK1	I	Bit clock input for ASI1 input (64 fs or 32 fs are applied)
9	FS384I	I	384 fs or 512 fs input (Not used)
10	LRCK1	I	L/R channel distinction signal input "H":L-ch "L":R-ch (Not used)
11	ASI2	I	Audio data serial input 2
12	BCK2	I	Bit clock input for ASI2 input (64 fs or 32 fs are applied)
13	VDD	–	Power supply (+5 V)
14	TEST1	I	Test input (Connected to ground)
15	TEST2	I	Test input (Connected to ground)
16	TEST3	I	Test input (Connected to ground)
17	TEST4	I	Test input (Connected to ground)
18	VSSI	–	Ground
19	TEST5	O	Test output To be not connected
20	RAS	O	When accessing DRAM (IC402), RAS signal output
21	CAS	O	When accessing DRAM (IC402), CAS signal output
22	DWRT	O	When accessing memory (IC402), data read write signal output
23	DREAD	O	When accessing memory (IC402), data read signal output
24	CE/CS	O	Tip enable signal output to SRAM and Para-SRAM (Not used)
25	D7	I/O	Data input/output with memory (Not used)
26	D7	I/O	Data input/output with memory (Not used)
27	D7	I/O	Data input/output with memory (Not used)
28	D7	I/O	Data input/output with memory (Not used)
29	D3	I/O	Data input/output with memory (IC402)
30	D2	I/O	Data input/output with memory (IC402)
31	D1	I/O	Data input/output with memory (IC402)
32	D0	I/O	Data input/output with memory (IC402)
33	VSS2	–	Ground
34	A0	O	Address output to memory (IC402)
35	A1	O	Address output to memory (IC402)
36	A2	O	Address output to memory (IC402)
37	A3	O	Address output to memory (IC402)
38	A4	O	Address output to memory (IC402)
39	A5	O	Address output to memory (IC402)
40	A6	O	Address output to memory (IC402)
41	A7	O	Address output to memory (IC402)
42	A8	O	Address output to memory (IC402)
43	A9	O	Address output to memory (Not used)
44	A10	O	Address output to memory (Not used)

Pin No.	Pin Name	I/O	Function
45	A11	O	Address output to memory (Not used)
46	A12	O	Address output to memory (Not used)
47	A13	O	Address output to memory (Not used)
48	A14	O	Address output to memory (Not used)
49	A15	O	Address output to memory (Not used)
50	A16	O	Address output to memory (Not used)
51	VDD2	–	Power supply (+5 V)
52	OSC1	I	Input for crystal oscillator
53	OSC2	O	Output for crystal oscillator (Not used)
54	VSS3	–	Ground
55	FS384O	O	384 fs or 512 fs output
56	FS192O	O	192 fs 256 fs output
57	FS128O	O	128 fs output (Not used)
58	FS64O	O	64 fs or 32 fs output
59	FS32O	O	32 fs or 16 fs output (Not used)
60	LRCKO	O	1 fs output
61	AOWCK	O	2 fs or 1 fs output (Not used)
62	ASO	O	Audio data serial output 1
63	AOTDF1	O	Audio data serial output 2 (Not used)
64	AOTDF2	O	Audio data serial output 3
65	SI	I	Serial data input from microcomputer (IC150)
66	SICK	I	Clock input for serial data from microcomputer (IC150)
67	SIRQ	I	Request signal input into serial data input from microcomputer (IC150)
68	SIAK	O	Serial-input executing output to microcomputer (IC150)
69	SRDY	I	Serial data-input exited input from microcomputer (IC150)
70	S0	O	Serial data output to microcomputer (Not used)
71	SOCK	I	Serial clock input for SO (Not used)
72	SORQ	I	Serial data output request signal input (Not used)
73	SOAK	O	Serial data output executing output (Not used)
74	VSS4	–	Ground
75	RES	I	Reset signal input from microcomputer (IC150)
76	INT	I	Interrupt request input (Not used)
77	VDD3	–	Power supply terminal +5 V
78	SELC	I	System clock switching ("L":FS3841 "H":Self-running oscillator clock) (Using FS3841)
79	SACK1	I	FS3840 output switching ("L":1/3 divided frequency output to FS1280 "H":1/4 divided frequency output to FS1280) (1/4 divided frequency to FS1280)
80	SACK2	I	FS output clock switching ("L":External input "H":Self-running oscillator clock) (In use external input)

S VIDEO BOARD IC809 MB90T673PF-G-BND (OSD CONTROL)

Pin No.	Pin Name	I/O	Function
1	AD14	I/O	Address data bus input/output
2	AD15	I/O	Address data bus input/output
3	A16	O	Address bus output
4	A17	O	Address bus output
5	A18	O	Address bus output
6	A19	O	Address bus output
7	PCE	O	Chip enable output for programable microcomputer communication
8	PCLK	O	Clock outpput for programable microcomputer communication
9	PDATA	O	Data output for programable microcomputer comunication
10	PDATA	I	Data input for programable microcomputer comunication
11	VSS	–	Ground
12	ALE	O	Address latch enable output
13	RDX	O	Read strobe output
14	WRLX	O	Write strobe (Data bus low 8 bit)
15	WRHX	O	Write strobe (Data bus high 8 bit)
16	HRQ	O	Hold request Not used (Open)
17	HAKX	O	Hold acknowledge (Not used)
18	RDY	O	Ready output Not used (Open)
19	CLK	O	Clock (For outer bus) Not used (Open)
20	RX	I	Data input from IC101
21	TX	O	Data output to IC101c
22	SCART8	O	Skart P8 control output
23	SEE-TH	O	See through mode output
24	SOT1	O	Serial data (OSDC) output
25	SCk1	O	Serial clock (OSDC) output
26	SCE	O	Serial latch (OSDC) output
27	ANT IN	I	Antenna connect detect "L":Connect
28	AVCC	–	Analog voltage (+5 V)
29	AVR+	–	Reference voltage (+5 V)
30	AVR-	–	Reference voltage (Ground)
31	AVSS	–	Analog voltage (Ground)
32	AVOL	I	Volume A/D input
33	READY	I	Data receive OK signal input
34	VSS	–	Ground
35	DATA	I	Infrared data exist/without "H":Exist
36	OK	I	OK input for programable microcomputer
37	M FULL	I	Memory full input for programable microcomputer
38	BACKUP		Back up NG input for programable microcomputer
39	NG	I	NG input for programable microcomputer
40	IR	I	Learn IR input for programable microcomputer "H":No signal
41	MD0	I	Mode set up (H)
42	MD1	I	Mode set up (L)
43	MD2	I	Mode set up (L)
44	HSTX	I	Hardwear standby (Fixed at "H")

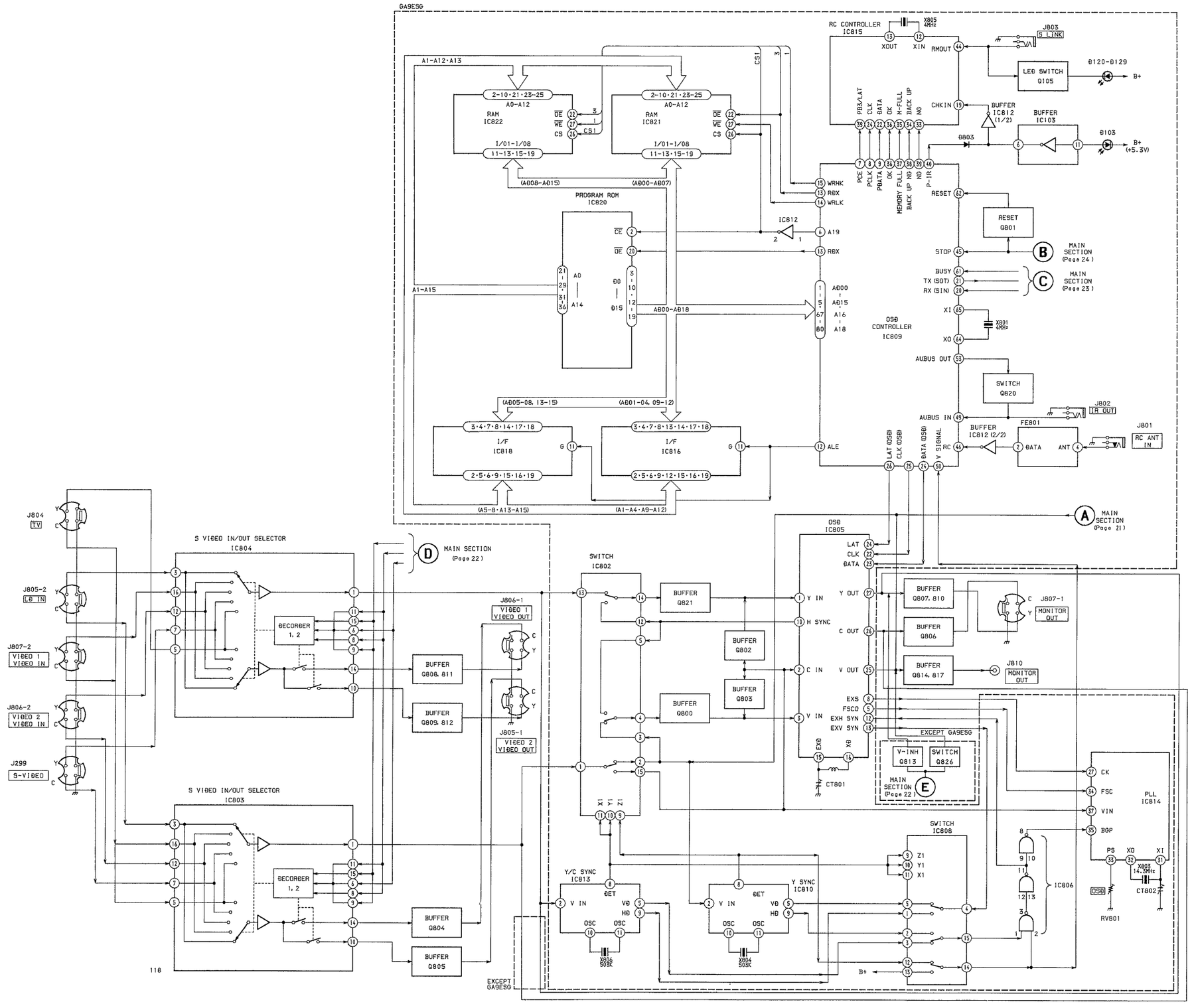
Pin No.	Pin Name	I/O	Function
45	STOP	I	Stop input
46	SIRCS	I	Sircs RF input
47	–	–	Not used (Open)
48	–	O	Not used (Open)
49	AUBUS-IN	I	Audio bus input (100 disc CD)
50	SIGNAL	I	Video signal exist/without "H":Exist
51	–	O	Not used (Open)
52	NTSC/PAL	I	NTSC/PAL signal detect
53	AUBUS-OUT	O	Audio bus output (100 disc CD)
54	–	O	Not used (Open)
55	–	O	Not used (Open)
56	–	O	Not used (Open)
57	–	O	Not used (Open)
58	–	O	Not used (Open)
59	–	O	Not used (Open)
6O	IR OFF	O	Front panel IR OFF output
61	BUSY	O	Busy signal output to OSD microcomputer (IC101)
62	RESET	I	Reset signalinput
63	VSS	–	Ground
64	X0	O	Clock OSC (4.0 MHz)
65	X1	I	Clock OSC (4.0 MHz)
66	VCC	–	Power supply (+5 V)
67	AD0	I/O	Address data bus (Low 8 bit)
68	AD1	I/O	Address data bus (Low 8 bit)
69	AD2	I/O	Address data bus (Low 8 bit)
70	AD3	I/O	Address data bus (Low 8 bit)
71	AD4	I/O	Address data bus (Low 8 bit)
72	AD5	I/O	Address data bus (Low 8 bit)
73	AD6	I/O	Address data bus (Low 8 bit)
74	AD7	I/O	Address data bus (Low 8 bit)
75	AD8	I/O	Address data bus (Low 8 bit)
76	AD9	I/O	Address data bus (Low 8 bit)
77	AD10	I/O	Address data bus (Low 8 bit)
78	AD11	I/O	Address data bus (Low 8 bit)
79	AD12	I/O	Address data bus (Low 8 bit)
80	AD13	I/O	Address data bus (Low 8 bit)

S VIDEO BOARD IC815 S-1810CF-049 (RC CONTROL)

Pin No.	Pin Name	I/O	Function
1	VDD1	–	Power supply (+5 V)
2	VSS1	–	Ground
3	SENO	I	Not used (Open)
4	SEN1	I	Not used (Open)
5	SEN2	I	Not used (Open)
6	SEN3	I	Not used (Open)
7	SEN4	I	Not used (Open)
8	SEN5	I	Not used (Open)
9	SEN6	I	Not used (Open)
10	SEN7	I	Not used (Open)
11	VDDD2	–	Power supply (+5 V)
12	XIN	I	Clock OSC (4.0 MHz)
13	XOUT	O	Clock OSC (4.0 MHz)
14	VSS2	–	Ground
15	$\overline{\text{REN}}$	O	Remote control reception cricuit power source control output Not used (Open)
16	RMIN	I	Not used (Open)
17	VSS3	–	Ground
18	CHKOUT	O	Not used (Open)
19	CHKIN	I	IR input
20	VADJI	I	Not used (Open)
21	VADJ2	I	Not used (Open)
22	DATA	I	Serial data input
23	SO	O	Serial data output
24	CLK	I	Serial clock input
25	VDD3	–	Power supply (+5 V)
26	–	–	Not used (Open)
27	VSS4	–	Ground
28	TEST1	I	Not used (Open)
29	TEST2	I	Not used (Open)
30	PA4	I	Power normal signal input Not used (Open)
31	PA5	O	Data receive OK signal output
32	PA6	O	Infrared data exist/without output
33	NG	O	Learn NG output
34	BACK UP		Back up NG output
35	M FULL	O	Memory full output
36	OK	O	OK output
37	–	O	Not used (Open)
38	VSS5	–	Ground
39	PB3/LAT	I	Chip enable input (Active "H")
40	–	O	Not used (Open)
41	VDDR	–	Power supply (+5 V) for inside RAM
42	$\overline{\text{RESET}}$	I	Reset input (Active "L")
43	CNHIGH	–	Connected to VDD
44	RM OUT		Remote infrared signal output

Pin No.	Pin Name	I/O	Function
45	–	O	Not used (Open)
46	–	O	Not used (Open)
47	–	O	Not used (Open)
48	–	O	Not used (Open)
49	–	O	Not used (Open)
50	–	O	Not used (Open)
51	–	O	Not used (Open)
52	–	O	Not used (Open)
53	–	O	Not used (Open)
54	–	O	Not used (Open)

3-2. BLOCK DIAGRAM – OSD Section –

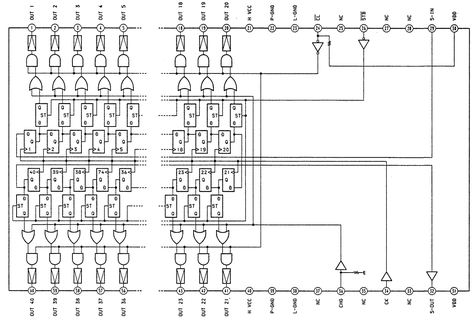


3-3. BLOCK DIAGRAM – MAIN Section –

GA8ES GA9ESG
FM 75Ω
TM301 ANTENNA
AM
FE301
300/75
L CH
R CH
R-CH
STEREO
T MUTE
A STOP
DO
VE8ES
J201-2 TUNER
INPUT SELECTOR IC202 (1/2)
LEVEL SHIFT
LATCH
SHIFT REGIST ER
CONTROL
BUFFER AMP IC203
INPUT SELECTOR IC202 (2/2)
LINE AMP IC302
+12V REG IC303
-12V REG IC304
AINL
A/D CONVERTER IC301
DATA
CLK
AS12
ASO
256fs
DIGITAL SIGNAL PROCESSOR IC401
D.RAM IC402
XIN
+12V REG IC403
XVDD
DIGITAL FILTER IC404
XTAL
X402 24MHz
MIX
IC305
IC306 LPF
DBFB SWITCH Q306, 307
GAIN SWITCH Q302, 303
GAIN SWITCH Q301
MUTE Q153
Q152
Q406
Q407
Q408
+12V REG IC406
DIGITAL FILTER IC405
IC408
IC407
IC506 ELECTRIC VOLUME
IC507 (1/2)
IC507 (2/2)
IC501 INPUT SELECTOR
RY501
Q501
MUTE Q554, 560
MUTE Q502, 508
IC502
IC503 (2/2)
IC503 (1/2)
MUTE Q505
MUTE Q510, 504
MUTE Q509, 503
IC512 (1/2)
IC512 (2/2)
IC511
RV501 MASTER VOLUME
RV104 BALABCE
VA8ES
GA8ES, GA9ESG
IC509 LOW FILTER SELECT SW
IC510 (1/2)
IC510 (2/2)
IC601 VOLTAGE AMP
L IN
L OUT +VE
OUT -VE
BIAS Q601, 602
DRIVER Q605
DRIVER Q606
PROTECT OUT Q607
IC701 REAR AMP
AMP Q705, 706
BIAS Q701, 702
IC001 VOLTAGE AMP
BIAS Q001, 002
DRIVER Q005
DRIVER Q006
PROTECT OUT Q007
PROTECT Q010, 011, 012
RELAY DRIVE Q603
RELAY DRIVE Q608
RY601
RY602
S135 SPEAKERS
J100 HEADPHONES
TM701 FRONT SPEAKERS
RY701
REAR SPEAKERS
TM601
CENTER SPEAKERS
RELAY DRIVE Q708
RY001
RELAY DRIVE Q008
RY503
RELAY DRIVE Q506
J205 SURROUND OUT
CENTER
REAR
WOOFER
S203 NOMAL SWAP POWER SWAP
S202 OFF ON LOW FILTER
EQ AMP IC201
J201-1 PHONO
J202-1 CD
J202-3 DAT/MD IN
BUFFER IC203
J203-2 TAPE IN
J202-2 DAT MD REC OUT
J203-1 TAPE REC OUT
INPUT VIDEO SWITCH IC204
J210-3 TV AUDIO IN
J210-2 LD AUDIO IN
J299-3 VIDEO 3 AUDIO IN
J210-3 VIDEO 2 AUDIO IN
J210-1 VIDEO 2 AUDIO OUT
J211-1 VIDEO 1 AUDIO IN
J211-2 VIDEO 1 AUDIO OUT
E DSP SECTION
FUNCTION MUTING Q201
MUTE DRIVE Q202
FUNC.MUT
INH
DATA IN (PLL)
TUNER MUTE
AUTO STOP
STEREO
IC150 MAIN CONTROLLER
8dB GAIN
4dB GAIN
2dB GAIN
ALL MUTE
-20dB GAIN
BASS BOOST
RY DIR
IC104 MOTOR DRIVER
VOL UP
VOL DOWN
LED DRIVE Q102
CF151 20MHz
XTAL
EXTAL
SP (FRONT) RY
PROTECT IN
SP (REAR) RY
SP (CENTER) RY
RY-HP
SWAP
LCF
RY POWER
RY-4/8
V-A V-B V-E
VIDEO FUNCTION SWITCH IC811
J808-1 TV VIDEO IN
J808-2 LD VIDEO IN
J809-3 VIDEO 1 VIDEO IN
J809-1 VIDEO 2 VIDEO IN
J299-2 VIDEO 3 VIDEO OUT
DECORDER
A OSD SECTION
D OSD SECTION
BUFFER Q816, 819
BUFFER Q815, 818
J808-3 VIDEO 2 VIDEO OUT
J809-2 VIDEO 1 VIDEO OUT
5.1 INPUT
J204-2 WOOFER
J203-3 FRONT
J204-1 REAR
J204-2 CENTER
GA8ES VA8ES
IC102 IR DETECTOR
SIRCS
BUSY TX RX
C OSD SECTION
ROTARY ENCODER RV101
ROTARY ENCODER RV102
ROTARY ENCODER RV103
VOL LED
LED-STBY
IC101 SYSTEM CONTROL
LED DRIVE Q106~113
FUNCTION LED
LED DRIVE Q104
STANDBY
VA8ES
DISP CLR
FL DRIVER IC105
FL DRIVER IC100
FLUORESCENT INDICATOR TUBE FL100
FL LATCH
FL CLK
FL DATA
S.POWER
S134 POWER
GA8ES, GA9ESG
KEY MATRIX S100~140
RESET
X TAL
STOP
X100 4MHz
RESET Q103
B OSD SECTION
+35V REG Q971
RECT D918, 919
RECT D971, 972
RELAY DRIVE Q651
RY902
+5V REG IC973
B+ REG IC971
B- REG IC972
RECT D970
T1 POWER TRANWSFORMER
EXCEPT US, CND, E, EA, PX
CNS901 AC OUTLET
US, CND, E, EA, PX
CNJ901 AC OUTLET
VA8ES
S133 POWER
SWITCH Q114
RY901
RELAY DRIVE Q901
VS901-2 VOLTAGE SELECTOR
120V 240V 220V
EXCEPT E, EA, PX
AC IN
B+ REG Q902
RECT D901~904
T901 POWER TRANSFORMER
RECT D905, 906
RESET IC901
VS901-1 VOLTAGE SELECTOR
120V → 240V → 220V
—R-CH is omitted:Same as L-CH—
Signal Path
:FRONT
:REAR
:CENTER

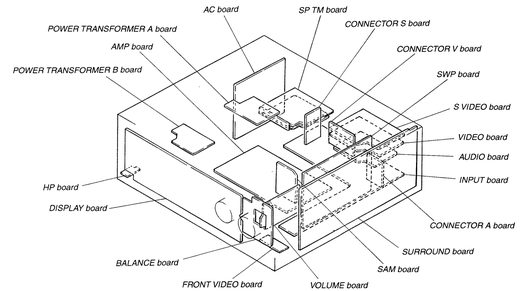
• IC Block Diagram

IC100, 105 TD62C950RF

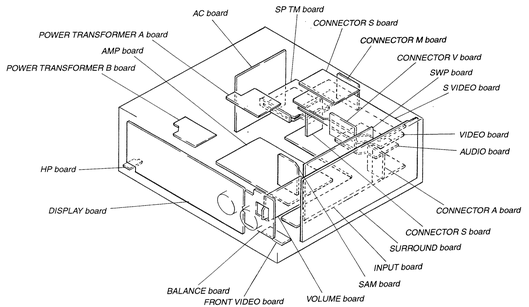


• Circuit Boards Location

• GA8ES/VA8ES



• GA9ESG



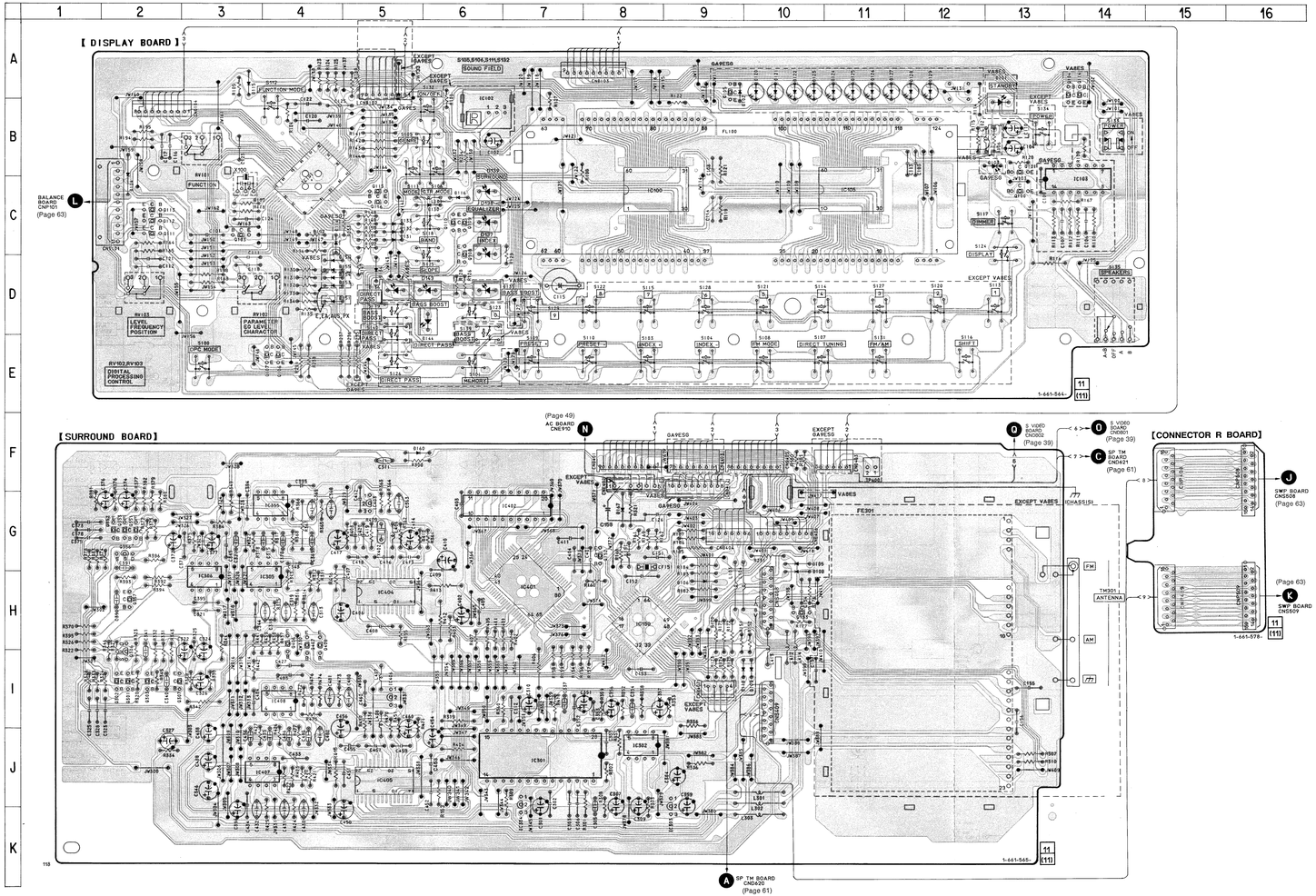
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	A-13	IC301	J-7
D102	A-9	IC302	J-8
D103	B-13	IC303	J-9
D104	C-2	IC304	J-7
D105	G-10	IC305	H-3
D106	H-9	IC306	H-3
D108	G-10	IC355	G-4
D109	I-10	IC401	H-7
D110	I-10	IC402	G-6
D114	C-4	IC403	G-5
D115	A-3	IC404	H-5
D116	C-6	IC405	J-5
D120	A-10	IC406	I-5
D121	A-10	IC407	J-4
D122	A-10	IC408	I-4
D123	A-10		
D124	A-11	Q100	C-13
D125	A-11	Q101	B-13
D126	A-11	Q103	C-3
D127	A-11	Q104	A-14
D128	A-12	Q105	A-9
D129	A-12	Q106	E-4
D130	C-6	Q107	E-4
D131	C-5	Q108	D-6
D132	C-5	Q109	C-6
D133	C-5	Q110	C-6
D134	D-5	Q111	C-2
D135	D-6	Q112	C-2
D136	D-5	Q113	C-2
D137	D-6	Q114	A-14
D138	C-6	Q115	C-5
D139	C-6	Q116	C-5
D143	D-6	Q152	G-8
D144	E-6	Q153	H-10
D151	D-4	Q301	I-2
D153	D-4	Q302	I-2
D154	D-4	Q303	I-2
D155	D-4	Q306	I-2
D156	D-4	Q307	I-2
D160	F-5	Q351	G-2
D167	G-8	Q352	G-2
		Q353	G-2
IC100	C-8	Q356	G-2
IC101	C-4	Q357	H-2
IC102	B-6	Q406	H-4
IC103	B-14	Q407	H-4
IC105	C-11	Q408	H-4
IC150	H-8		

Note on Printed Wiring Board:

- ○——: parts extracted from the component side.
- ——: parts extracted from the conductor side.
- △: internal component.
- : Pattern from the side which enables seeing.
- Abbreviation
  AUS : Australian
  EA : Saudi Arabia

3-4. PRINTED WIRING BOARDS – DISPLAY/SURROUND Section –



3-5. SCHEMATIC DIAGRAM – DISPLAY/SURROUND Section –

【DISPLAY BOARD】

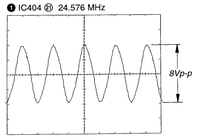
【SURROUND BOARD】

【CONNECTOR R BOARD】

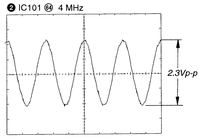
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B + Line.
- B− : B − Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
- Abbreviation
  AUS : Australian
  EA : Saudi Arabia

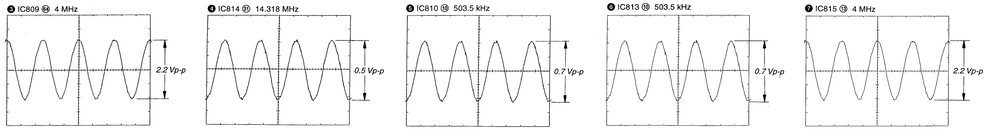
❶ IC404 Ⓡ 24.576 MHz



❷ IC101 Ⓡ 4 MHz



• **Waveforms**

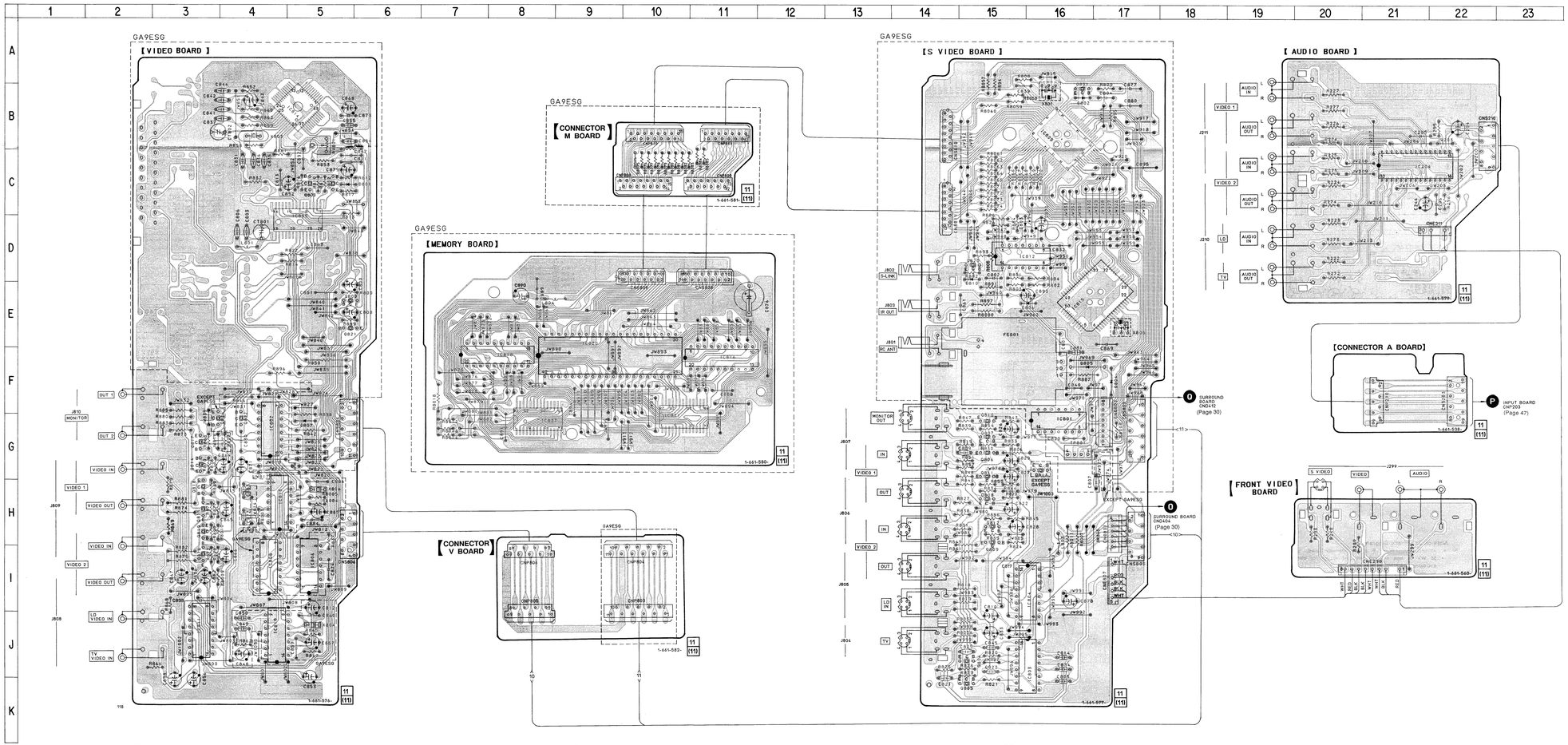


3-6. PRINTED WIRING BOARDS – VIDEO Section – • See page 26 for Circuit Boards Location.

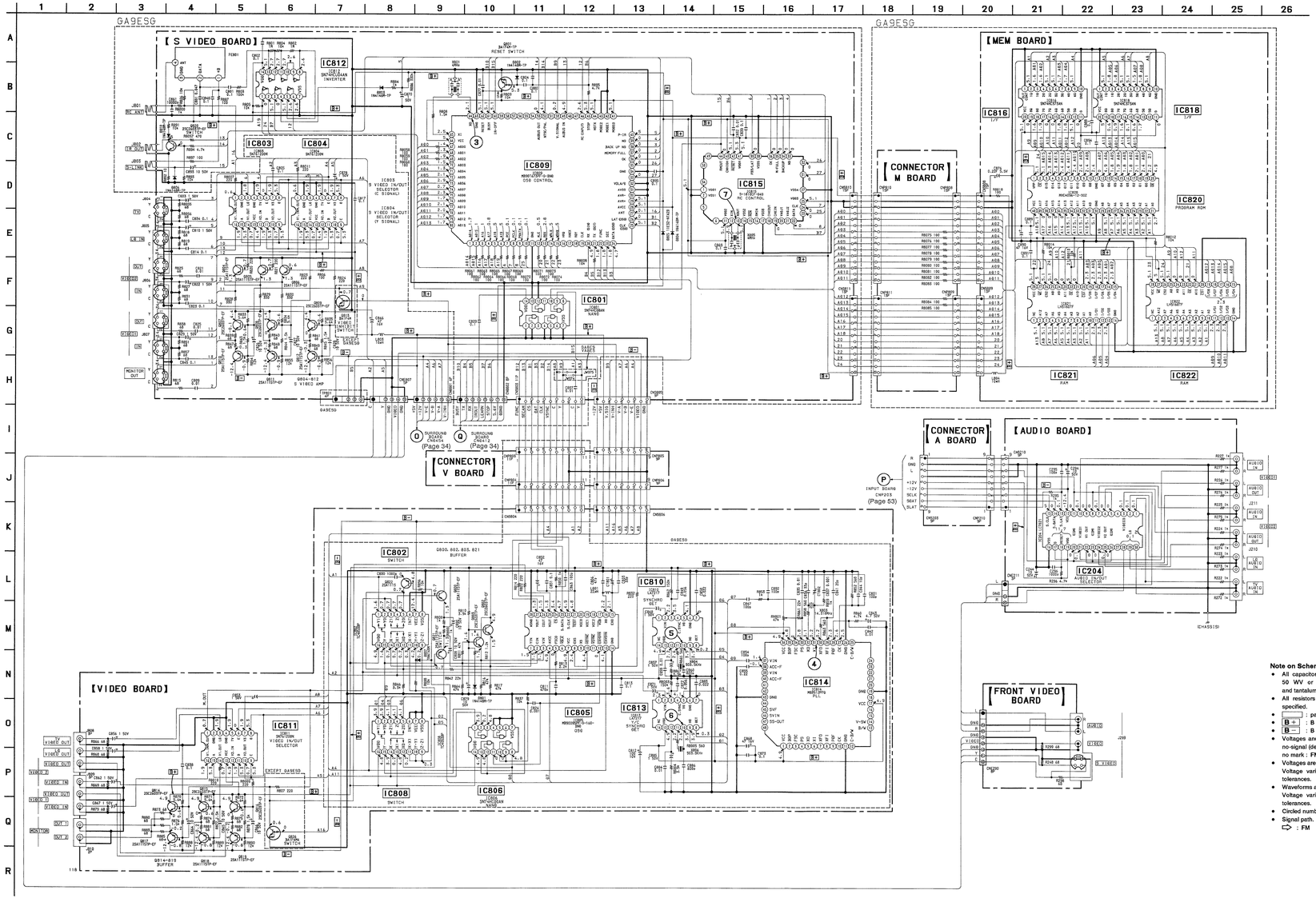
• **Semiconductor Location**

Ref. No.	Location
D801	C-5
D802	B-16
D803	D-15
D804	F-17
D805	F-16
D806	E-16
D807	G-5
D810	D-15
IC204	C-21
IC801	G-16
IC802	G-4
IC803	J-16
IC804	I-16
IC805	D-5
IC806	I-5
IC808	I-4
IC809	B-16
IC810	J-4
IC811	J-3
IC812	D-15
IC813	H-4
IC814	B-5
IC815	E-16
IC816	F-11
IC818	F-8
IC820	F-9
IC821	G-10
IC822	G-8
Q800	E-5
Q801	B-16
Q802	C-5
Q803	C-5
Q804	J-15
Q805	K-15
Q806	G-15
Q807	G-15
Q808	H-15
Q809	H-15
Q810	G-15
Q811	G-15
Q812	H-15
Q813	G-16
Q814	G-3
Q815	H-3
Q816	I-3
Q817	G-3
Q818	H-3
Q819	H-3
Q820	D-15
Q821	E-5
Q822	G-4
Q826	G-3

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

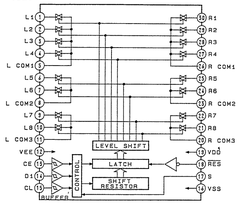


3-7. SCHEMATIC DIAGRAM – VIDEO Section –

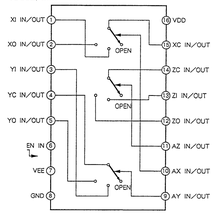


- IC Block Diagrams

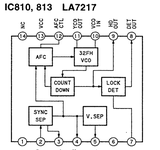
IC204 LC7821



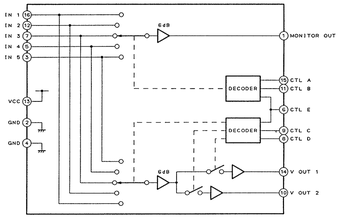
IC802, 808 TC4053BP



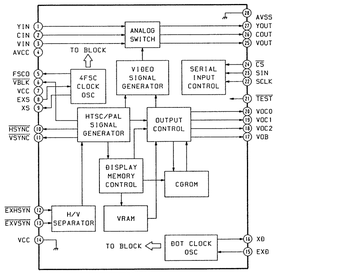
IC810, 813 LA7217



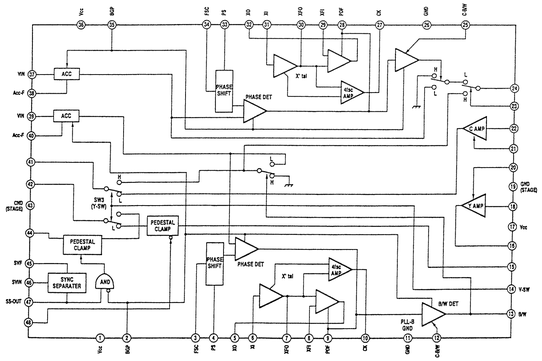
IC803, 804, 811 SN761200N



IC805 MB90095PF-G-160-BND



IC814 MB3512PFQ



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF. 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- : panel designation.
- : B + Line.
- : B – Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : FM

3-8. PRINTED WIRING BOARDS – MAIN Section –

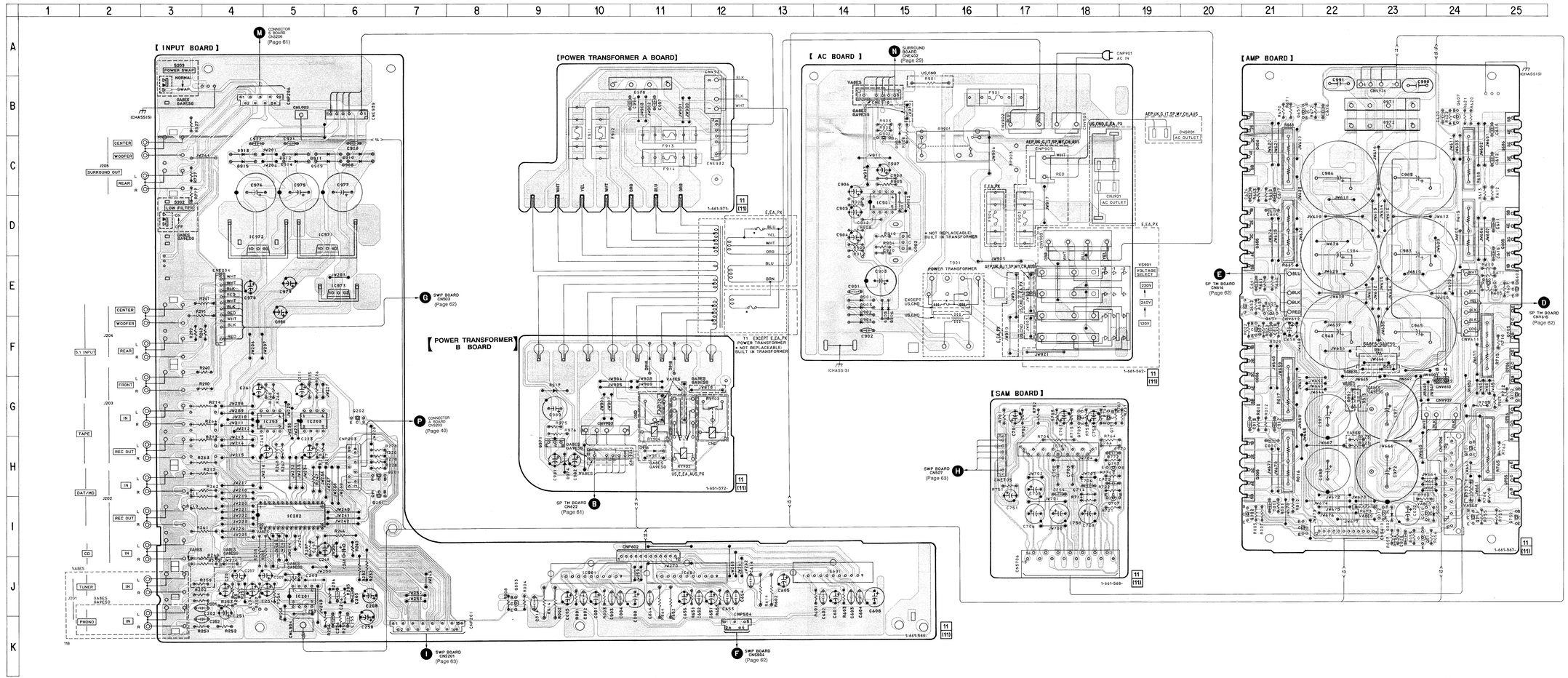
• See page 26 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D001	I-24	IC973	E-6
D002	I-23		
D901	E-14	Q001	I-22
D902	E-14	Q002	I-21
D903	E-14	Q003	J-9
D904	E-14	Q005	H-21
D905	E-15	Q006	F-21
D906	E-15	Q007	F-21
D907	B-15	Q010	I-24
D908	C-6	Q011	I-24
D909	C-6	Q012	I-23
D910	C-6	Q201	H-6
D911	C-6	Q202	G-6
D912	C-5	Q251	I-6
D913	C-4	Q601	E-25
D914	C-5	Q602	E-25
D915	C-4	Q605	D-25
D916	H-11	Q606	C-25
D917	G-9	Q607	B-24
D918	F-11	Q651	E-21
D919	F-11	Q652	E-21
D970	B-11	Q655	D-21
D971	B-24	Q656	C-21
D972	B-24	Q657	B-21
D974	H-9	Q701	H-24
D991	F-23	Q702	F-25
D992	G-22	Q703	G-18
		Q705	F-25
IC001	J-10	Q706	F-25
IC201	J-5	Q707	I-18
IC202	I-5	Q751	I-24
IC203	G-5	Q752	I-25
IC253	G-5	Q753	G-18
IC601	J-14	Q755	H-25
IC651	J-11	Q756	G-25
IC701	H-18	Q757	H-18
IC901	D-15	Q901	C-15
IC971	D-5	Q902	D-15
IC972	D-4	Q971	H-9

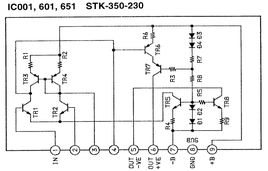
Note on Printed Wiring Board:

- ◇——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- Bottom view : Pattern from the side which enables seeing.
- Abbreviation
  - AUS : Australian
  - CH : Chinese
  - CND : Canadian
  - EA : Saudi Arabia
  - G : German
  - IT : Italian
  - MY : Malaysia
  - SP : Singapore

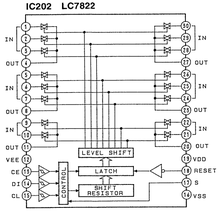


• IC Block Diagrams

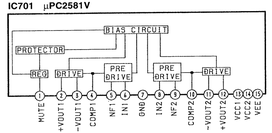
IC001, 601, 651 STK-350-230



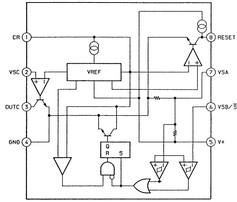
IC202 LC7822



IC701 µPC2581V



IC901 NJM2103D



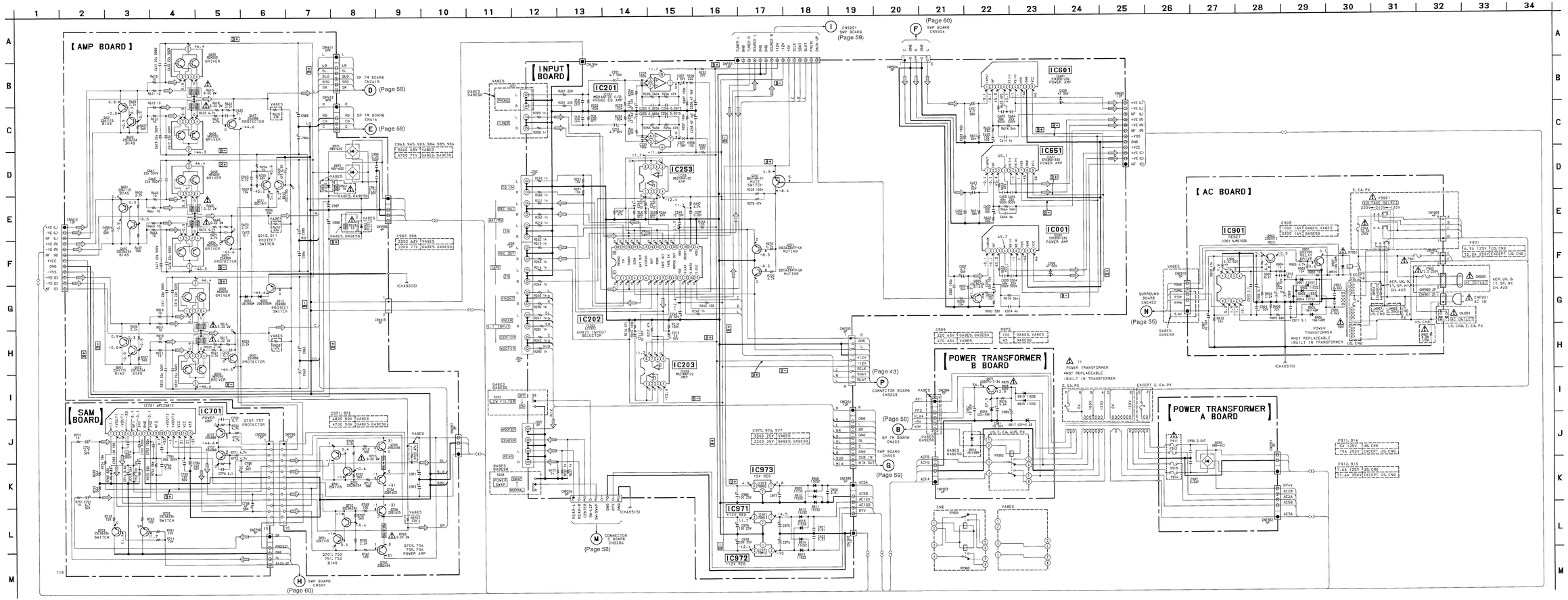
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- [K-ω] : nonflammable resistor.
- [ ] : panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

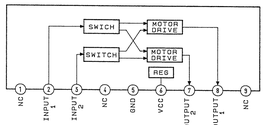
- [B+] : B + Line.
- [B−] : B − Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions. no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path. ⇨ : FM
- Abbreviation
  AUS : Australian
  CH : Chinese
  CND : Canadian
  EA : Saudi Arabia
  G : German
  IT : Italian
  MY : Malaysia
  SP : Singapore

3-9. SCHEMATIC DIAGRAM – MAIN Section –

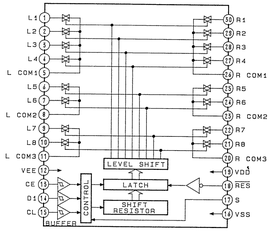


• IC Block Diagrams

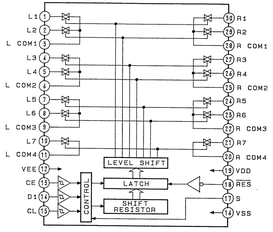
IC104 BA6208



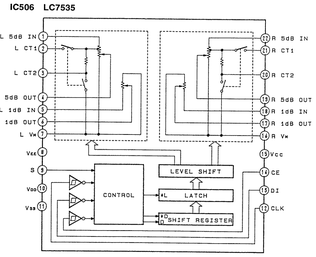
IC501 LC7821



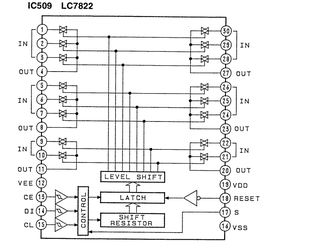
IC502 LC7823



IC506 LC7535



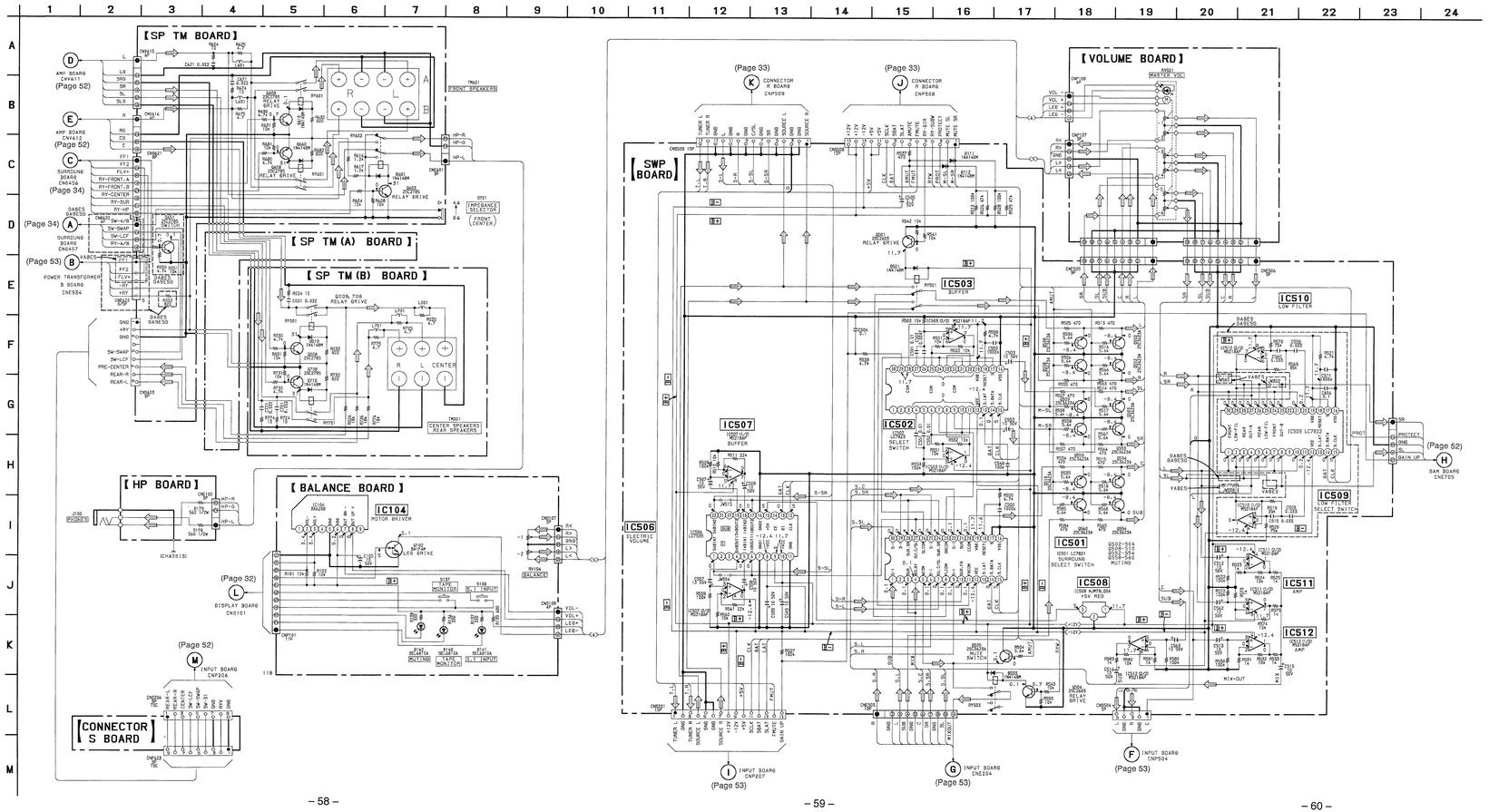
IC509 LC7822



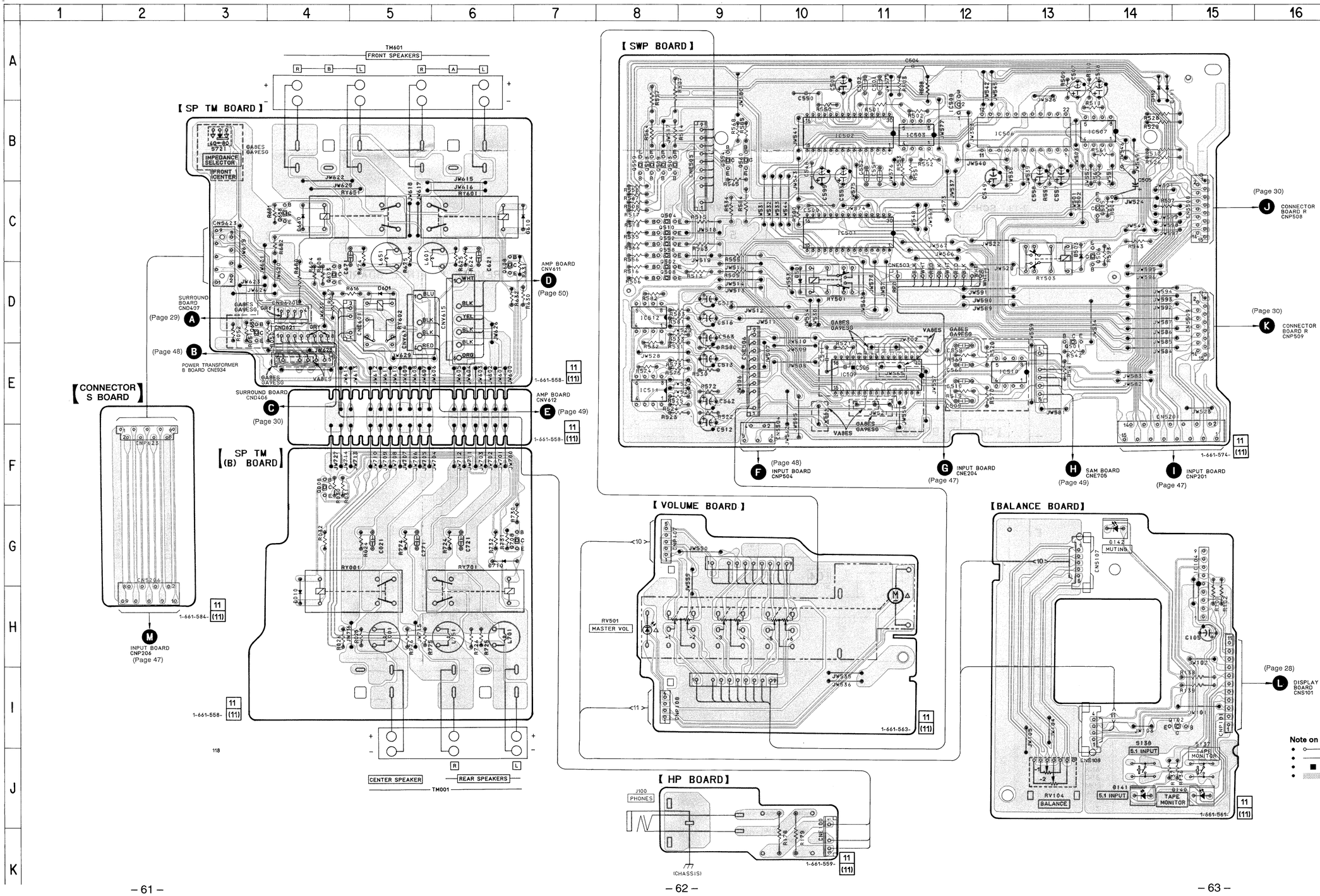
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- [ ] : panel designation.
- B+ : B + Line.
- B− : B − Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

3-10. SCHEMATIC DIAGRAM – SUB Section –



3-11. PRINTED WIRING BOARDS – SUB Section – • See page 26 for Circuit Boards Location.



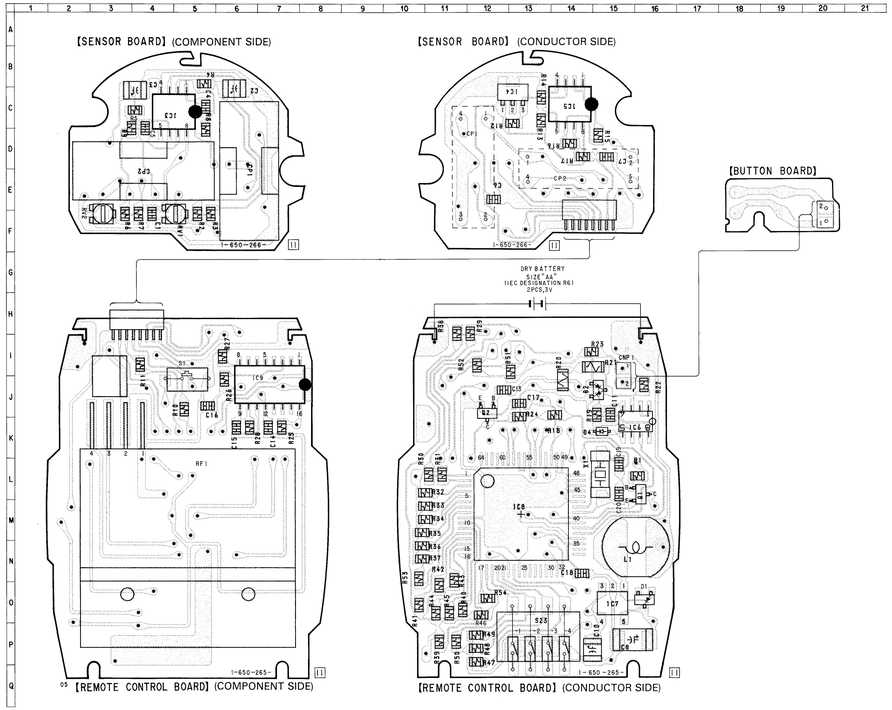
• **Semiconductor Location**

Ref. No.	Location
D010	H-4
D111	A-14
D112	A-14
D140	J-15
D141	J-14
D142	G-14
D501	D-10
D503	C-13
D601	D-5
D610	C-7
D660	C-4
D710	G-6
IC104	G-15
IC501	C-11
IC502	B-11
IC503	B-11
IC506	B-13
IC507	B-14
IC508	B-12
IC509	E-11
IC510	E-13
IC511	E-8
IC512	D-8
Q008	F-4
Q102	I-15
Q501	D-13
Q502	D-8
Q503	B-8
Q504	C-8
Q505	C-14
Q506	C-14
Q508	D-2
Q509	B-8
Q510	C-8
Q552	C-8
Q553	B-8
Q554	B-9
Q558	C-8
Q559	B-8
Q560	B-9
Q603	D-4
Q608	D-6
Q651	D-3
Q658	C-4
Q708	G-7

Note on Printed Wiring Board:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.

3-12. PRINTED WIRING BOARDS – REMOTE CONTROL Section (RM-VP1) – (STR-GA9ESG)

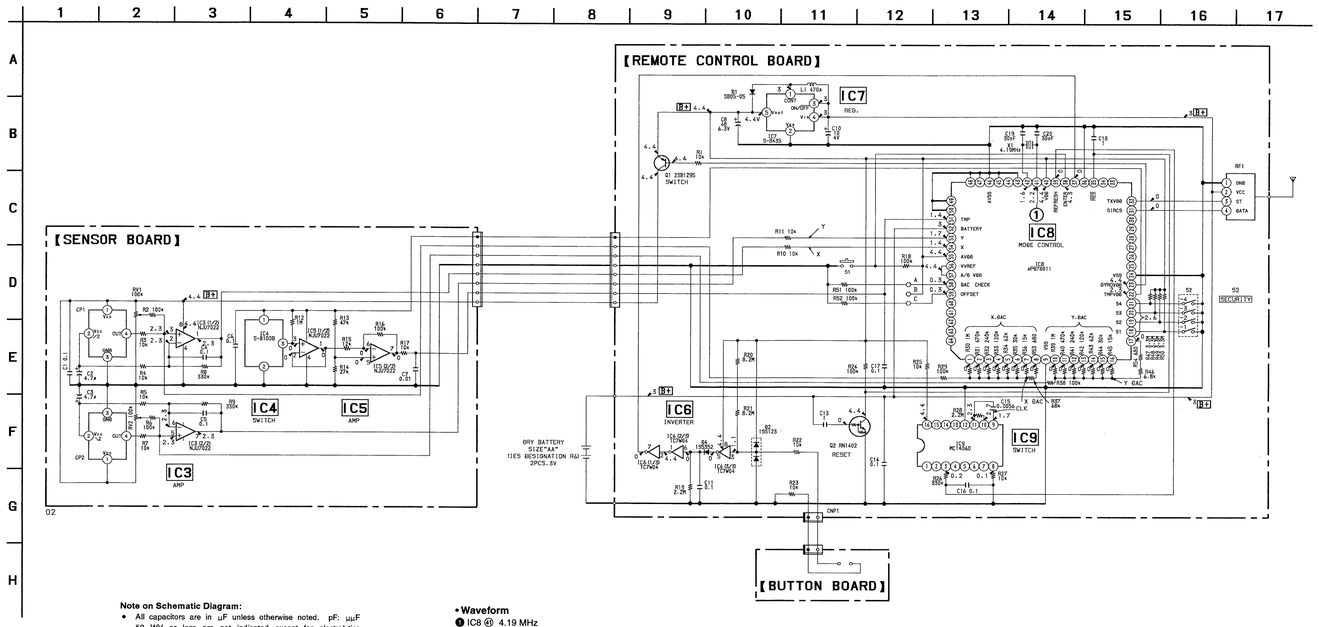

【SENSOR BOARD】 (COMPONENT SIDE)
【SENSOR BOARD】 (CONDUCTOR SIDE)
【BUTTON BOARD】
DRY BATTERY SIZE"AA" (IEC DESIGNATION R6) 2PCS,3V
【REMOTE CONTROL BOARD】 (COMPONENT SIDE)
【REMOTE CONTROL BOARD】 (CONDUCTOR SIDE)

• Semiconductor Location

Ref. No.	Location
D1	O-16
D2	J-15
D4	K-15
IC3	C-4
IC4	C-13
IC5	C-14
IC6	K-16
IC7	O-15
IC8	M-13
IC9	J-7
Q1	L-16
Q2	J-12

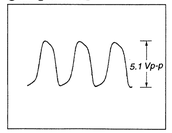
Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.

3-13. SCHEMATIC DIAGRAM – REMOTE CONTROL Section (RM-VP1) – (STR-GA9ESG)



Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Circled number refer to waveform.

• **Waveform**
❶ IC8 ㉔ 4.19 MHz

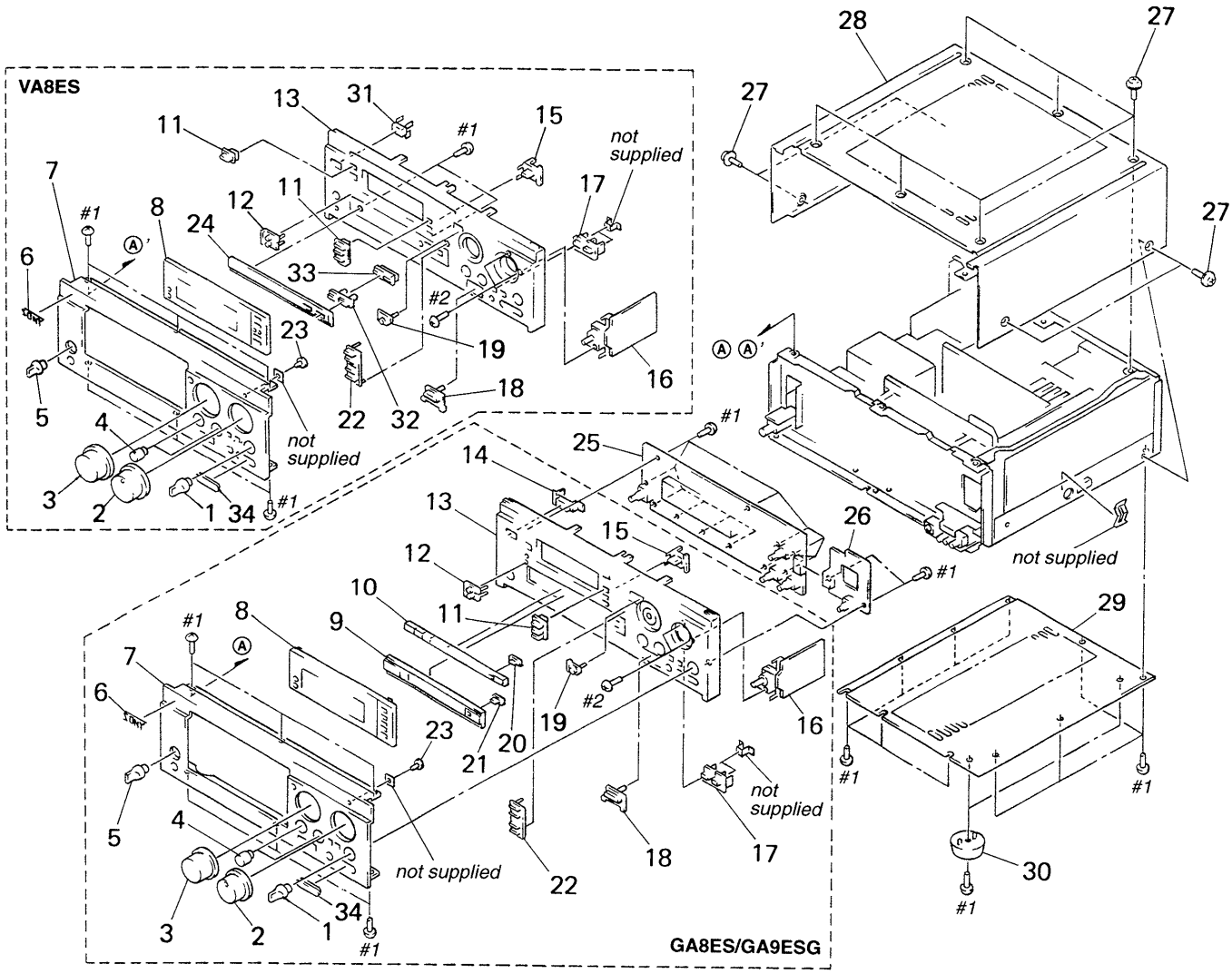


SECTION 4
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Abbreviation
  G: German MY: Malaysia
  IT: Italian AUS: Australian
  SP: Singapore CH: Chinese
  CND: Canadian EA: Saudi Arabia
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

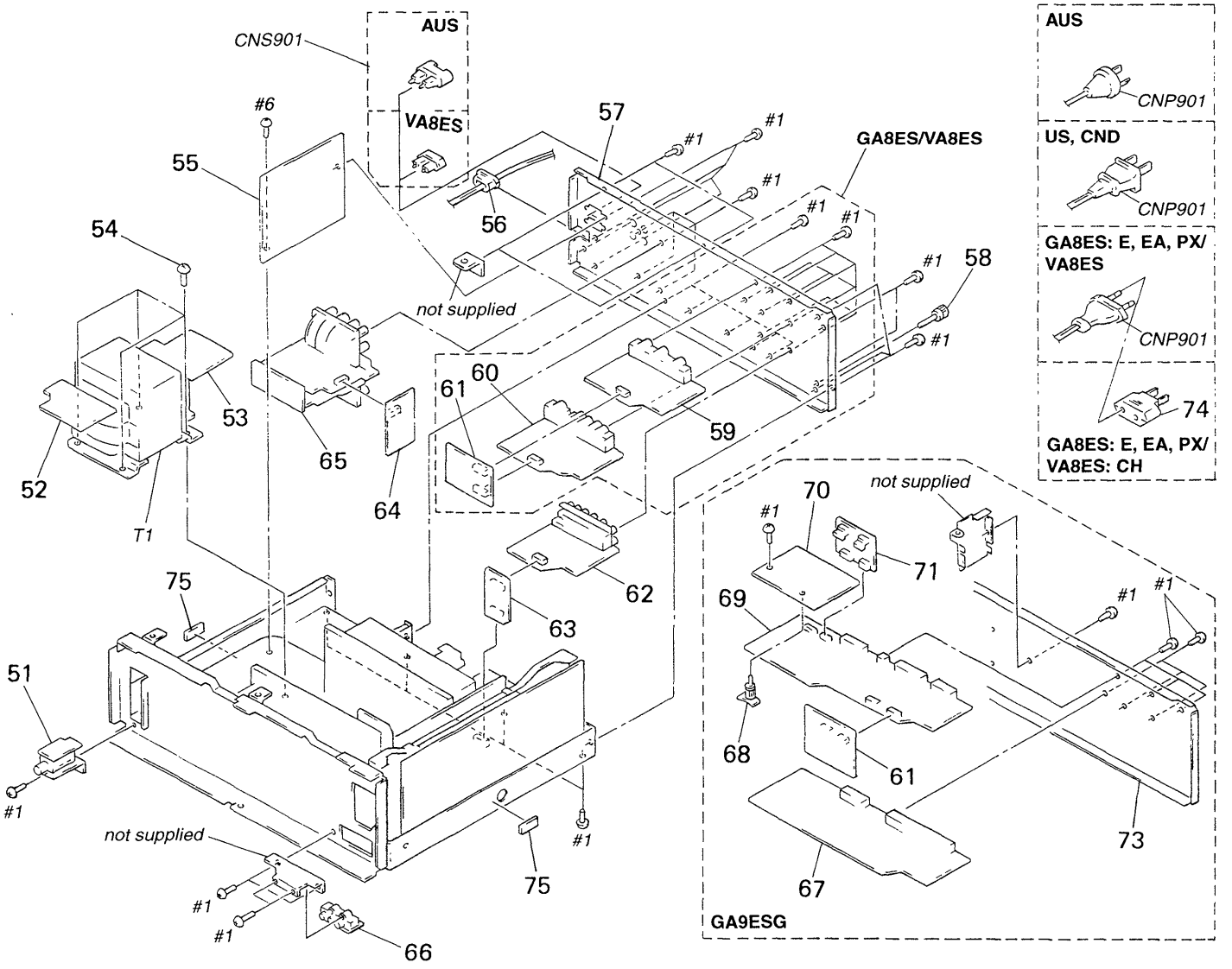
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CASE, FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-982-074-01	KNOB (R19-B) (BLACK) (EXCEPT CH)	
1	4-982-074-11	KNOB (R19-B) (GOLD) (AEP, UK, G, IT, CH)	
2	X-4947-139-1	KNOB (R48F) ASSY (BLACK) (EXCEPT CH)	
2	X-4947-139-2	KNOB (R48F) ASSY (GOLD) (AEP, UK, G, IT, CH)	
3	X-4947-140-1	KNOB (R48V) ASSY (BLACK) (EXCEPT CH)	
3	X-4947-140-2	KNOB (R48V) ASSY (GOLD) (AEP, UK, G, IT, CH)	
4	4-982-073-01	KNOB (R19-A) (BLACK) (EXCEPT CH)	
4	4-982-073-11	KNOB (R19-A) (GOLD) (AEP, UK, G, IT, CH)	
5	4-957-383-01	KNOB (F14) (BLACK) (EXCEPT CH)	
5	4-957-383-11	KNOB (F14) (GOLD) (AEP, UK, G, IT, CH)	
6	4-942-568-01	EMBLEM (NO. 5), SONY (BLACK) (EXCEPT CH)	
6	4-942-568-21	EMBLEM (NO. 5), SONY (GOLD)	(AEP, UK, G, IT, CH)
7	4-982-093-01	PANEL (E4), FRONT (BLACK) (GA9ESG)	
7	4-982-093-11	PANEL (E4), FRONT (BLACK) (GA8ES)	
7	4-982-093-41	PANEL (E4), FRONT (BLACK)	(AEP, UK, G, IT, MY, SP)
7	4-982-093-51	PANEL (E4), FRONT (GOLD) (AEP, UK, G, IT, CH)	
8	4-982-084-01	PLATE (E4), INDICATION (GA9ESG)	
8	4-982-084-41	PLATE (E4), INDICATION (GA8ES)	
8	4-982-084-51	PLATE (E4), INDICATION (VA8ES)	
9	4-982-076-01	BUTTON (B) (GA8ES/GA9ESG)	
10	4-982-075-01	BUTTON (A) (GA8ES/GA9ESG)	
11	4-982-271-01	INDICATOR (M)	
12	4-982-082-01	BUTTON (H)	
13	4-982-270-01	BASE (E4), PANEL (BLACK) (GA8ES/GA9ESG)	
13	4-982-270-11	BASE (E4), PANEL (BLACK)	(AEP, UK, G, IT, MY, SP)
13	4-982-270-21	BASE (E4), PANEL (GOLD) (AEP, UK, G, IT, CH)	
14	4-979-936-01	BUTTON (P-T) (GA8ES/GA9ESG)	
15	4-982-080-01	BUTTON (F)	
* 16	1-661-563-11	VOLUME BOARD	
17	4-982-077-01	BUTTON (C) (BLACK) (EXCEPT CH)	
17	4-982-077-11	BUTTON (C) (GOLD) (AEP, UK, G, IT, CH)	
18	4-982-078-01	BUTTON (D) (BLACK) (EXCEPT CH)	
18	4-982-078-11	BUTTON (D) (GOLD) (AEP, UK, G, IT, CH)	
19	4-982-081-01	BUTTON (G) (BLACK) (EXCEPT CH)	
19	4-982-081-11	BUTTON (G) (GOLD) (AEP, UK, G, IT, CH)	
20	4-982-272-01	INDICATOR (A) (GA8ES/GA9ESG)	
21	4-982-273-01	INDICATOR (B) (GA8ES/GA9ESG)	
22	4-982-079-01	BUTTON (E)	
23	4-938-518-01	INDICATOR (C)	
24	X-4947-170-1	ESCUTCHEON ASSY (BLACK)	(AEP, UK, G, IT, MY, SP)
24	X-4947-276-1	ESCUTCHEON (G) ASSY (GOLD)	(AEP, UK, G, IT, CH)
* 25	A-4386-127-A	DISPLAY BOARD, COMPLETE (CH, MY, SP)	
* 25	A-4390-372-A	DISPLAY BOARD, COMPLETE (GA9ESG)	
* 25	A-4390-387-A	DISPLAY BOARD, COMPLETE (AEP, UK, G, IT)	
* 25	A-4390-400-A	DISPLAY BOARD, COMPLETE (GA8ES:US, CND)	
* 25	A-4390-401-A	DISPLAY BOARD, COMPLETE (AUS)	
* 25	A-4390-402-A	DISPLAY BOARD, COMPLETE (E, EA, PX)	
* 26	1-661-561-11	BALANCE BOARD	
27	3-704-366-01	SCREW (CASE) (M3X8)	
* 28	4-982-090-01	CASE (414538E) (BLACK) (EXCEPT CH)	
* 28	4-982-090-21	CASE (414538E) (GOLD) (AEP, UK, G, IT, CH)	
* 29	4-966-115-21	BOARD (385), BOTTOM	
30	X-4947-325-1	FOOT (50175) ASSY	
31	4-980-109-01	BUTTON (P-M) (BLACK) (AEP, UK, G, IT, MY, SP)	
31	4-980-109-11	BUTTON (P-M) (GOLD) (AEP, UK, G, IT, CH)	
32	4-982-085-02	BUTTON (M) (BLACK) (BASS BOOST)	(AEP, UK, G, IT, MY, SP)
32	4-982-085-12	BUTTON (M) (BLACK) (DIRECT PASS)	(AEP, UK, G, IT, MY, SP)
32	4-982-085-22	BUTTON (M) (GOLD) (BASS BOOST)	(AEP, UK, G, IT, CH)
32	4-982-085-32	BUTTON (M) (GOLD) (DIRECT PASS)	(AEP, UK, G, IT, CH)
33	4-982-274-01	INDICATOR (C) (VA8ES)	
34	4-982-083-01	COVER (V3) (BLACK) (EXCEPT CH)	

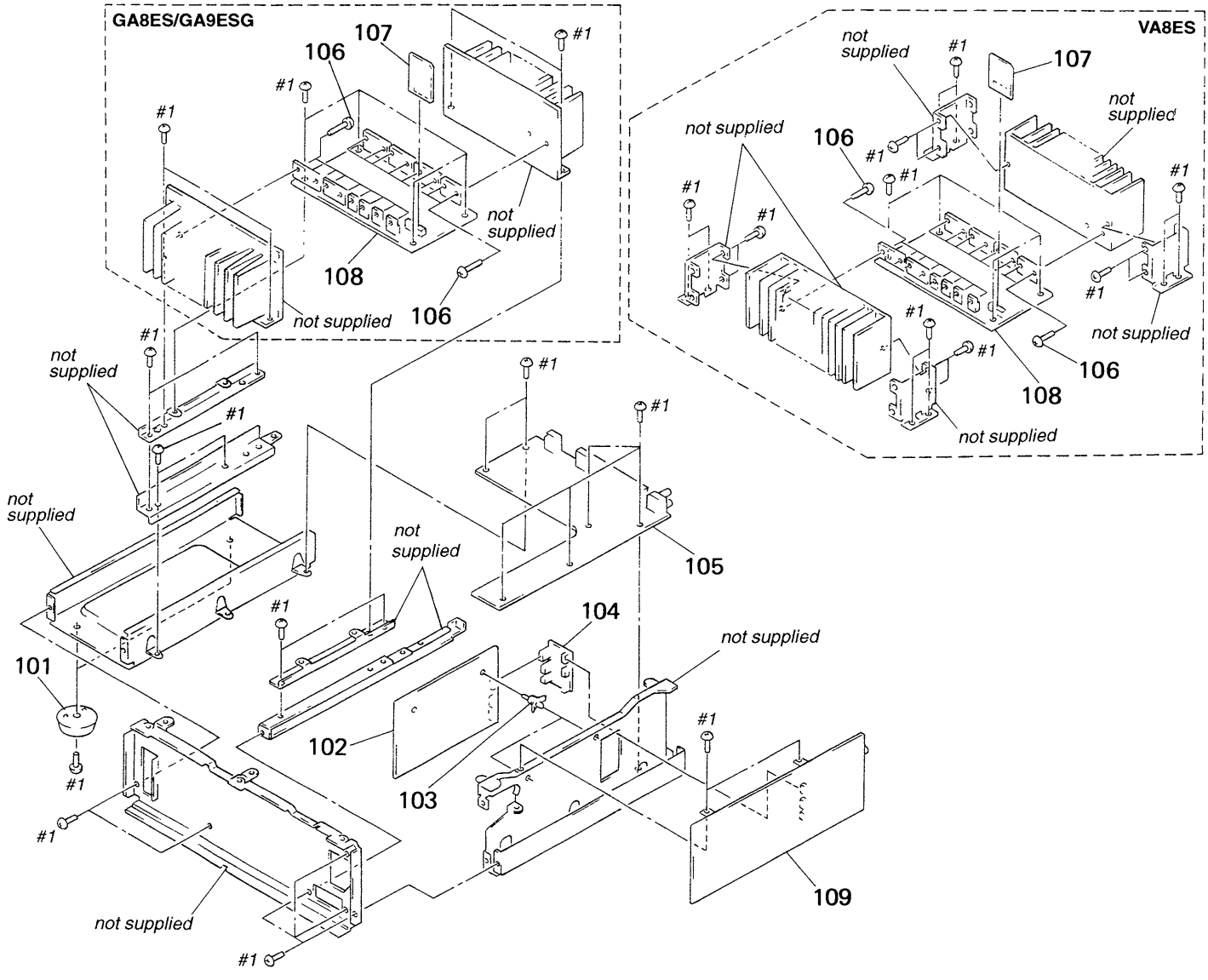
(2) CHASSIS SECTION-1



Ref. No.	Part No.	Description	Remark
* 51	1-661-559-11	HP BOARD	
* 52	1-661-572-11	POWER TRANSFORMER B BOARD	
* 53	1-661-571-11	POWER TRANSFORMER A BOARD	
54	4-381-962-11	SCREW +BVTT 4X8 (S)	
* 55	A-4390-361-A	AC BOARD, COMPLETE (GA9ESG)	
* 55	A-4390-380-A	AC BOARD, COMPLETE (AEP, UK, G, IT, MY, SP)	
* 55	A-4390-386-A	AC BOARD, COMPLETE (CH)	
* 55	A-4390-395-A	AC BOARD, COMPLETE (AUS)	
* 55	A-4390-396-A	AC BOARD, COMPLETE (E, EA, PX)	
* 55	A-4392-211-A	AC BOARD, COMPLETE (GA8ES:US, CND)	
* 56	3-703-244-00	BUSHING (2104), CORD (GA8ES:E, AUS/VA8ES)	
56	4-916-783-01	BUSHING, CORD (GA8ES:US, CND, EA, PX/GA9ESG)	
* 57	4-982-091-21	PANEL, BACK (GA8ES:US)	
* 57	4-982-091-31	PANEL, BACK (GA8ES:CND)	
* 57	4-982-091-41	PANEL, BACK (E, EA, PX)	
* 57	4-982-091-51	PANEL, BACK (AUS)	
* 57	4-982-092-11	PANEL, BACK (AEP, UK, G, IT)	
* 57	4-982-092-21	PANEL, BACK (CH, MY, SP)	
58	4-947-010-01	SCREW, FEEDER FIXED	
* 59	A-4390-398-A	S VIDEO BOARD, COMPLETE (GA8ES/VA8ES)	
* 60	A-4390-397-A	VIDEO BOARD, COMPLETE (GA8ES/VA8ES)	
* 61	1-661-582-11	CONNECTOR V BOARD	
* 62	A-4390-364-A	AUDIO BOARD, COMPLETE	
* 63	1-661-583-11	CONNECTOR A BOARD	
* 64	1-661-584-11	CONNECTOR S BOARD	
* 65	A-4390-359-A	SP TM BOARD, COMPLETE	
* 66	1-661-560-11	FRONT VIDEO BOARD	
* 67	A-4390-362-A	VIDEO BOARD, COMPLETE (GA9ESG)	
* 68	3-703-353-07	SUPPORT, PC BOARD (GA9ESG)	
* 69	A-4390-363-A	S VIDEO BOARD, COMPLETE (GA9ESG)	
* 70	1-661-580-11	MEM BOARD (GA9ESG)	
* 71	1-661-581-11	CONNECTOR M BOARD (GA9ESG)	
* 73	4-982-091-01	PANEL, BACK (GA9ESG:US)	
* 73	4-982-091-11	PANEL, BACK (GA9ESG:CND)	
⚠74	1-569-008-21	ADAPTOR, CONVERSION 2P (GA8ES:E, EA, PX/VA8ES:CH)	
75	4-985-642-01	CUSHION	
⚠CNP901	1-559-479-11	CORD, POWER (US, CND)	
⚠CNP901	1-690-608-11	CORD, POWER (AUS)	
⚠CNP901	1-776-095-11	CORD, POWER (GA8ES:E, EA, PX/VA8ES)	
⚠CNS901	1-251-078-11	OUTLET, AC. (AUS)	
⚠CNS901	1-526-794-11	OUTLET, AC (VA8ES)	
⚠T1	1-429-587-11	TRANSFORMER, POWER (US)	
⚠T1	1-429-588-11	TRANSFORMER, POWER (E, EA, PX)	
⚠T1	1-429-591-11	TRANSFORMER, POWER (VA8ES)	
⚠T1	1-429-592-11	TRANSFORMER, POWER (AUS)	
⚠T1	1-429-595-11	TRANSFORMER, POWER (CND)	

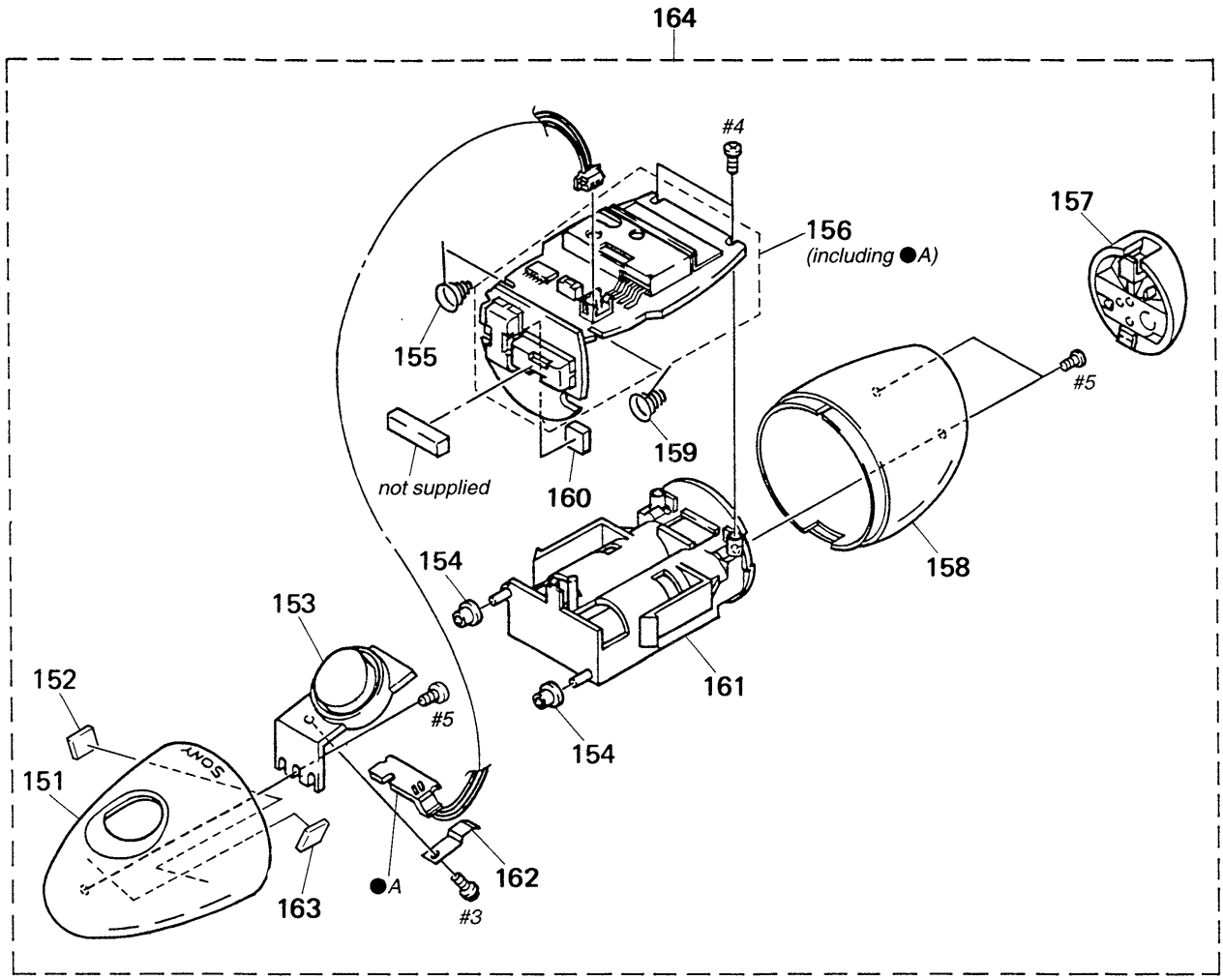
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

(3) CHASSIS SECTION-2



Ref. No.	Part No.	Description	Remark
101	X-4947-325-1	FOOT (50175) ASSY	
* 102	A-4390-356-A	SWP BOARD, COMPLETE (GA8ES/GA9ESG)	
* 102	A-4390-377-A	SWP BOARD, COMPLETE (VA8ES)	
* 103	3-703-353-01	SUPPORT, PC BOARD	
* 104	1-661-578-11	CONNECTOR R BOARD	
* 105	A-4390-349-A	INPUT BOARD, COMPLETE (GA8ES/GA9ESG)	
* 105	A-4390-374-A	INPUT BOARD, COMPLETE (VA8ES)	
106	3-905-609-01	SCREW (TRANSISTOR)	
* 107	A-4390-351-A	SAM BOARD, COMPLETE	
* 108	A-4390-350-A	AMP BOARD, COMPLETE (GA8ES/GA9ESG)	
* 108	A-4390-375-A	AMP BOARD, COMPLETE (VA8ES)	
* 109	A-4390-373-A	SURROUND BOARD, COMPLETE (GA9ESG)	
* 109	A-4390-491-A	SURROUND BOARD, COMPLETE (AUS)	
* 109	A-4390-926-A	SURROUND BOARD, COMPLETE (E, EA, PX)	
* 109	A-4392-040-A	SURROUND BOARD, COMPLETE (GA8ES:US, CND)	
* 109	A-4392-041-A	SURROUND BOARD, COMPLETE (VA8ES)	

(4) REMOTE COMMANDER SECTION (RM-VP1) (GA9ESG)



Ref. No.	Part No.	Description	Remark
151	4-962-491-01	SHELL (U)	
* 152	4-965-225-01	CUSHION	
153	4-962-765-01	BUTTON (ENTER)	
* 154	4-964-841-01	ABSORBER (A), SHOCK	
155	4-963-399-01	SPRING (R), BATTERY COIL	
* 156	A-4357-534-A	REMOTE CONTROL BOARD, COMPLETE	
157	X-4944-184-3	LID ASSY, BATTERY CASE	
158	4-962-492-01	SHELL (L)	
159	4-963-398-01	SPRING (L), BATTERY COIL	
* 160	4-964-914-02	ABSORBER (C), SHOCK	
161	4-962-495-01	CHASSIS	
162	4-963-106-01	RETAINER, PC BOARD	
* 163	4-965-226-01	CUSHION	
164	A-4352-701-A	OVERALL ASSY (RM-VP1)	

SECTION 5
ELECTRICAL PARTS LIST

AC

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  AUS:Australian CH:Chinese CND:Canadian EA:Saudi Arabia
  G:German IT:Italian MY:Malaysia SP:Singapore
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description		Remark
*	A-4390-361-A	AC BOARD, COMPLETE (GA9ESG)		
*	A-4392-211-A	AC BOARD, COMPLETE (GA8ES:US, CND)		
*	A-4390-396-A	AC BOARD, COMPLETE (E, EA, PX)		
*	A-4390-395-A	AC BOARD, COMPLETE (AUS)		
*	A-4390-380-A	AC BOARD, COMPLETE (AEP, UK, G, IT, MY, SP)		
*	A-4390-386-A	AC BOARD, COMPLETE (CH)		
		**********		
	7-682-548-04	SCREW +BVTT 3X8 (S)		
	1-533-399-31	HOLDER, FUSE		
		< CAPACITOR >		
C901	1-164-097-11	CERAMIC	0.022uF	50V
C902	1-164-097-11	CERAMIC	0.022uF	50V
C903	1-126-942-61	ELECT	1000uF 20%	16V
C904	1-124-903-11	ELECT	1uF 20%	50V
C905	1-124-902-00	ELECT	0.47uF 20%	50V
C906	1-124-464-11	ELECT	0.22uF 20%	50V
C907	1-124-907-11	ELECT	10uF 20%	50V
C908	1-164-159-11	CERAMIC	0.1uF	50V
C910	1-164-159-11	CERAMIC	0.1uF	50V
C911	1-164-159-11	CERAMIC	0.1uF	50V
C912	1-164-159-11	CERAMIC	0.1uF	50V
		< CONNECTOR >		
CNE910	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P		(GA9ESG/GA8ES)
CNE910	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P (VA8ES)		
		< OUTLET >		
⚠CNJ901	1-540-060-11	OUTLET, AC (POLAR) (AC OUTLET)		(GA9ESG/GA8ES:US, CND, E, EA, PX)
		< CONNECTOR >		
CNP905	1-774-108-11	PIN, CONNECTOR (PC BOARD)		(AEP, UK, G, IT, CH, MY, SP, AUS)
		< OUTLET >		
⚠CNS901	1-251-078-11	OUTLET, AC (AC OUTLET) (AUS)		
⚠CNS901	1-526-794-11	OUTLET, AC (AC OUTLET) (VA8ES)		
		< CONNECTOR >		
CNV901	1-564-321-00	PIN, CONNECTOR 2P		
* CNV902	1-565-792-11	PIN, CONNECTOR 2P		
CNV903	1-568-106-11	PIN, CONNECTOR 4P (E, EA, PX)		
		< DIODE >		
D901	8-719-024-99	DIODE 11ES2-NTA2B		
D902	8-719-024-99	DIODE 11ES2-NTA2B		
D903	8-719-024-99	DIODE 11ES2-NTA2B		
D904	8-719-024-99	DIODE 11ES2-NTA2B		
D905	8-719-987-63	DIODE 1N4148M		
D906	8-719-987-63	DIODE 1N4148M		
D907	8-719-987-63	DIODE 1N4148M		
		< FUSE >		
⚠F901	1-532-464-51	FUSE, TIME-LAG (2.5A 250V)		(EXCEPT US, CND)
⚠F901	1-532-748-11	FUSE, GLASS TUBE (6.3A 125V) (US, CND)		
⚠F903	1-532-464-51	FUSE, TIME-LAG (2.5A 250V)		(AEP, UK, G, IT, CH, MY, SP, AUS)
⚠F904	1-532-464-51	FUSE, TIME-LAG (2.5A 250V) (E, EA, PX)		
		< IC >		
IC901	8-759-333-83	IC NJM2103D		
		< TRANSISTOR >		
Q901	8-729-119-79	TRANSISTOR 2SC2785-FEK		
Q902	8-729-209-15	TRANSISTOR 2SD2012		

AC **AMP**

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R900	1-249-393-11	CARBON	10	5%	1/4W
⚠R901	1-202-725-00	SOLID	3.3M	10%	1/2W(US, CND)
R902	1-249-429-11	CARBON	10K	5%	1/4W
R903	1-249-425-11	CARBON	4.7K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
R905	1-249-428-11	CARBON	8.2K	5%	1/4W
R906	1-249-421-11	CARBON	2.2K	5%	1/4W
R908	1-249-433-11	CARBON	22K	5%	1/4W
R909	1-249-439-11	CARBON	68K	5%	1/4W
R910	1-249-437-11	CARBON	47K	5%	1/4W
R912	1-249-430-11	CARBON	12K	5%	1/4W
		< RELAY >			
⚠RY901	1-515-999-11	RELAY, POWER			
		< TRANSFORMER >			
⚠T901	1-450-361-11	TRANSFORMER, POWER (US, CND)			
⚠T901	1-450-358-11	TRANSFORMER, POWER (EXCEPT US, CND)			
		< SWITCH >			
⚠VS901	1-571-437-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECT) (E, EA, PX)			
**********					
*	A-4390-350-A	AMP BOARD, COMPLETE (GA9ESG/GA8ES)			
*	A-4390-375-A	AMP BOARD, COMPLETE (VA8ES)			
		**********			
*	4-880-403-11	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C010	1-107-597-11	CERAMIC	22PF	10%	500V
C011	1-107-597-11	CERAMIC	22PF	10%	500V
C012	1-107-597-11	CERAMIC	22PF	10%	500V
C013	1-107-597-11	CERAMIC	22PF	10%	500V
C020	1-136-165-00	FILM	0.1uF	5%	50V
C022	1-126-941-11	ELECT	470uF	20%	6.3V
C023	1-136-169-00	FILM	0.22uF	5%	50V
C610	1-107-597-11	CERAMIC	22PF	10%	500V
C611	1-107-597-11	CERAMIC	22PF	10%	500V
C612	1-107-597-11	CERAMIC	22PF	10%	500V
C613	1-107-597-11	CERAMIC	22PF	10%	500V
C620	1-136-165-00	FILM	0.1uF	5%	50V
C658	1-126-051-11	ELECT	47uF	20%	50V (GA9ESG/GA8ES)
C658	1-126-051-11	ELECT	47uF	20%	50V (VA8ES)
C660	1-107-597-11	CERAMIC	22PF	10%	500V
C661	1-107-597-11	CERAMIC	22PF	10%	500V
C670	1-136-165-00	FILM	0.1uF	5%	50V
C676	1-107-597-11	CERAMIC	22PF	10%	500V
C677	1-107-597-11	CERAMIC	22PF	10%	500V
C963	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C963	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C965	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C965	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C971	1-126-138-11	ELECT	4700uF	20%	50V (GA9ESG/GA8ES)
C971	1-115-571-11	ELECT	6800uF	20%	50V (VA8ES)
C972	1-126-138-11	ELECT	4700uF	20%	50V (GA9ESG/GA8ES)
C972	1-115-571-11	ELECT	6800uF	20%	50V (VA8ES)
C983	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C983	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C984	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C984	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C985	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C985	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C986	1-115-567-11	ELECT	4700uF	20%	71V (GA9ESG/GA8ES)
C986	1-115-569-11	ELECT	5600uF	20%	63V (VA8ES)
C987	1-115-568-11	ELECT	2200uF	20%	71V (GA9ESG/GA8ES)
C987	1-113-686-11	ELECT	2200uF	20%	63V (VA8ES)
C988	1-115-568-11	ELECT	2200uF	20%	71V (GA9ESG/GA8ES)
C988	1-113-686-11	ELECT	2200uF	20%	63V (VA8ES)
C990	1-106-228-00	MYLAR	0.22uF	5%	100V
C991	1-106-228-00	MYLAR	0.22uF	5%	100V

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Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CNP706	1-764-821-11	CONNECTOR, BOARD TO BOARD 15P	
CNS610	1-568-672-11	CONNECTOR, BOARD TO BOARD 12P	
CNV611	1-778-145-11	PIN, CONNECTOR (PC BOARD) 6P	
CNV612	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P	
CNV613	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P	
CNV936	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P	
* CNV937	1-565-395-11	PIN, CONNECTOR 3P	
		< DIODE >	
D001	8-719-815-85	DIODE 1S1585	
D002	8-719-815-85	DIODE 1S1585	
D971	8-719-302-38	DIODE RBV-602-01	
D972	8-719-302-38	DIODE RBV-602-01	
D991	8-719-024-99	DIODE 11ES2-NTA2B (VA8ES)	
D992	8-719-024-99	DIODE 11ES2-NTA2B (VA8ES)	
		< IC/TRANSISTOR >	
Q001	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q002	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q005	8-749-010-43	IC NE-N250	
Q006	8-749-010-42	IC NE-P250	
Q007	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q010	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q011	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q012	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q602	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q605	8-749-010-43	IC NE-N250	
Q606	8-749-010-42	IC NE-P250	
Q607	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q652	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q655	8-749-010-43	IC NE-N250	
Q656	8-749-010-42	IC NE-P250	
Q657	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q702	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q705	8-729-026-01	TRANSISTOR 2SD2494-OPY	
Q706	8-729-026-05	TRANSISTOR 2SB1625-OPY	
Q751	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q752	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q755	8-729-026-01	TRANSISTOR 2SD2494-OPY	
Q756	8-729-026-05	TRANSISTOR 2SB1625-OPY	

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R005	1-249-421-11	CARBON 2.2K 5% 1/4W	
R007	1-249-414-11	CARBON 560 5% 1/4W	
R010	1-249-393-11	CARBON 10 5% 1/4W	
R011	1-249-393-11	CARBON 10 5% 1/4W	
R012	1-249-393-11	CARBON 10 5% 1/4W	
R013	1-249-393-11	CARBON 10 5% 1/4W	
⚠R016	1-233-352-21	ENCAPSULATED COMPONENT	
⚠R017	1-233-352-21	ENCAPSULATED COMPONENT	
R020	1-249-425-11	CARBON 4.7K 5% 1/4W	
R021	1-249-425-11	CARBON 4.7K 5% 1/4W	
R022	1-249-421-11	CARBON 2.2K 5% 1/4W	
R023	1-249-437-11	CARBON 47K 5% 1/4W	(VA8ES)
R054	1-249-417-11	CARBON 1K 5% 1/4W	
R055	1-249-439-11	CARBON 68K 5% 1/4W	
R056	1-249-436-11	CARBON 39K 5% 1/4W	
R057	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-421-11	CARBON 2.2K 5% 1/4W	
R607	1-249-414-11	CARBON 560 5% 1/4W	
R610	1-249-393-11	CARBON 10 5% 1/4W	
R611	1-249-393-11	CARBON 10 5% 1/4W	
R612	1-249-393-11	CARBON 10 5% 1/4W	
R613	1-249-393-11	CARBON 10 5% 1/4W	
⚠R615	1-233-352-21	ENCAPSULATED COMPONENT	F
⚠R618	1-233-352-21	ENCAPSULATED COMPONENT	F
R620	1-249-425-11	CARBON 4.7K 5% 1/4W	
R621	1-249-425-11	CARBON 4.7K 5% 1/4W	
R622	1-249-421-11	CARBON 2.2K 5% 1/4W	
R623	1-249-437-11	CARBON 47K 5% 1/4W	(VA8ES)
R655	1-249-421-11	CARBON 2.2K 5% 1/4W	
R657	1-249-414-11	CARBON 560 5% 1/4W	
R660	1-249-393-11	CARBON 10 5% 1/4W	
R661	1-249-393-11	CARBON 10 5% 1/4W	
R662	1-249-393-11	CARBON 10 5% 1/4W	
R663	1-249-393-11	CARBON 10 5% 1/4W	
⚠R665	1-233-352-21	ENCAPSULATED COMPONENT	F
⚠R668	1-233-352-21	ENCAPSULATED COMPONENT	F
R670	1-249-425-11	CARBON 4.7K 5% 1/4W	
R671	1-249-425-11	CARBON 4.7K 5% 1/4W	
R672	1-249-421-11	CARBON 2.2K 5% 1/4W	
R673	1-249-437-11	CARBON 47K 5% 1/4W	(VA8ES)
R705	1-249-421-11	CARBON 2.2K 5% 1/4W	
R707	1-249-414-11	CARBON 560 5% 1/4W	
R710	1-249-405-11	CARBON 100 5% 1/4W	
R712	1-249-405-11	CARBON 100 5% 1/4W	
⚠R715	1-233-352-21	ENCAPSULATED COMPONENT	F
R723	1-249-437-11	CARBON 47K 5% 1/4W	(VA8ES)

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AMP | AUDIO | BALANCE | CONNECTOR A

Ref. No.	Part No.	Description			Remark
R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R757	1-249-414-11	CARBON	560	5%	1/4W
R760	1-249-405-11	CARBON	100	5%	1/4W
R762	1-249-405-11	CARBON	100	5%	1/4W
⚠R765	1-233-352-21	ENCAPSULATED COMPONENT			F
R773	1-249-437-11	CARBON	47K	5%	1/4W (VA8ES)
⚠R911	1-249-393-11	CARBON	10	5%	1/4W F (GA9ESG/GA8ES)
⚠R913	1-249-393-11	CARBON	10	5%	1/4W F (GA9ESG/GA8ES)
**********					
*	A-4390-364-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C244	1-126-048-81	ELECT	10uF	20%	50V
C294	1-126-048-81	ELECT	10uF	20%	50V
C295	1-162-282-31	CERAMIC	100PF	10%	50V
C296	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
CNE211	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			
CNS210	1-695-093-11	SOCKET, CONNECTOR 9P			
		< IC >			
IC204	8-759-805-13	IC LC7821			
		< JACK >			
J210	1-766-394-11	JACK, PIN 6P (VIDEO2 (AUDIO OUT), LD AUDIO IN, TV AUDIO IN)			
J211	1-766-394-11	JACK, PIN 6P (VIDEO1 (AUDIO IN, OUT), VIDEO2 (AUDIO IN))			
		< RESISTOR >			
R222	1-249-417-11	CARBON	1K	5%	1/4W
R223	1-249-417-11	CARBON	1K	5%	1/4W
R224	1-249-417-11	CARBON	1K	5%	1/4W
R225	1-249-417-11	CARBON	1K	5%	1/4W
R226	1-249-417-11	CARBON	1K	5%	1/4W
R227	1-249-417-11	CARBON	1K	5%	1/4W
R272	1-249-417-11	CARBON	1K	5%	1/4W
R273	1-249-417-11	CARBON	1K	5%	1/4W
R274	1-249-417-11	CARBON	1K	5%	1/4W
R275	1-249-417-11	CARBON	1K	5%	1/4W
R276	1-249-417-11	CARBON	1K	5%	1/4W
R277	1-249-417-11	CARBON	1K	5%	1/4W
R295	1-249-417-11	CARBON	1K	5%	1/4W
R296	1-249-425-11	CARBON	4.7K	5%	1/4W
**********					

Ref. No.	Part No.	Description			Remark
*	1-661-561-11	BALANCE BOARD			
		**********			
		< CAPACITOR >			
C105	1-124-907-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CNP101	1-766-551-11	PLUG, CONNECTOR 11P			
CNS107	1-770-398-11	HOUSING, CONNECTOR (PC BOARD) 5P			
CNS108	1-770-397-11	HOUSING, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D140	8-719-301-49	DIODE SEL2810A-CD (TAPE MONITOR)			
D141	8-719-301-49	DIODE SEL2810A-CD (5.1 INPUT)			
D142	8-719-301-49	DIODE SEL2810A-CD (MUTING)			
		< IC >			
IC104	8-759-962-08	IC BA6208			
		< TRANSISTOR >			
Q102	8-729-900-36	TRANSISTOR DTC124ES			
		< RESISTOR >			
R101	1-249-429-11	CARBON	10K	5%	1/4W
R102	1-249-429-11	CARBON	10K	5%	1/4W
R136	1-249-411-11	CARBON	330	5%	1/4W
R137	1-249-411-11	CARBON	330	5%	1/4W
R138	1-249-411-11	CARBON	330	5%	1/4W
R139	1-249-415-11	CARBON	680	5%	1/4W
		< VARIABLE RESISTOR >			
RV104	1-223-880-11	RES, VAR, CARBON 100K/100K (BALANCE)			
		< SWITCH >			
S137	1-554-303-21	SWITCH, TACTILE (TAPE MONITOR)			
S138	1-554-303-21	SWITCH, TACTILE (5.1 INPUT)			
**********					
*	1-661-583-11	CONNECTOR A BOARD			
		**********			
		< CONNECTOR >			
CNP210	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
CNS203	1-695-093-11	SOCKET, CONNECTOR 9P			
**********					

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CONNECTOR M

Ref.No.	Part No.	Description			Remark
*	1-661-581-11	CONNECTOR M BOARD (GA9ESG)			
		**********			
		< CONNECTOR >			
CNP808	1-750-984-11	CONNECTOR, BOARD TO BOARD 15P			
CNP809	1-778-446-11	CONNECTOR, BOARD TO BOARD 13P			
CNP810	1-778-398-11	CONNECTOR, BOARD TO BOARD 15P			
CNP811	1-778-397-11	CONNECTOR, BOARD TO BOARD 13P			
		< RESISTOR >			
R8075	1-247-807-31	CARBON	100	5% 1/4W	
R8076	1-247-807-31	CARBON	100	5% 1/4W	
R8077	1-247-807-31	CARBON	100	5% 1/4W	
R8078	1-247-807-31	CARBON	100	5% 1/4W	
R8079	1-247-807-31	CARBON	100	5% 1/4W	
R8080	1-247-807-31	CARBON	100	5% 1/4W	
R8081	1-247-807-31	CARBON	100	5% 1/4W	
R8082	1-247-807-31	CARBON	100	5% 1/4W	
R8083	1-247-807-31	CARBON	100	5% 1/4W	
R8084	1-247-807-31	CARBON	100	5% 1/4W	
R8085	1-247-807-31	CARBON	100	5% 1/4W	

CONNECTOR R

Ref.No.	Part No.	Description			Remark
*	1-661-578-11	CONNECTOR R BOARD			
		**********			
		< CONNECTOR >			
CNP408	1-750-984-11	CONNECTOR, BOARD TO BOARD 15P			
CNP409	1-750-984-11	CONNECTOR, BOARD TO BOARD 15P			
CNP508	1-778-398-11	CONNECTOR, BOARD TO BOARD 15P			
CNP509	1-778-398-11	CONNECTOR, BOARD TO BOARD 15P			

CONNECTOR S

Ref.No.	Part No.	Description			Remark
*	1-661-584-11	CONNECTOR S BOARD			
		**********			
		< CONNECTOR >			
CNP623	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
CNS206	1-695-093-11	SOCKET, CONNECTOR 9P			

CONNECTOR V

Ref.No.	Part No.	Description			Remark
*	1-661-582-11	CONNECTOR V BOARD			
		**********			
		< CONNECTOR >			
CNP803	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P			(GA9ESG)
CNP804	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P			(GA9ESG)
CNP805	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
CNP806	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			

DISPLAY

Ref.No.	Part No.	Description			Remark
*	A-4390-372-A	DISPLAY BOARD, COMPLETE			(GA9ESG)
*	A-4390-400-A	DISPLAY BOARD, COMPLETE			(GA8ES:US, CND)
*	A-4390-402-A	DISPLAY BOARD, COMPLETE			(E, EA, PX)
*	A-4390-401-A	DISPLAY BOARD, COMPLETE			(AUS)
*	A-4390-387-A	DISPLAY BOARD, COMPLETE			(AEP, UK, G, IT)
*	A-4386-127-A	DISPLAY BOARD, COMPLETE			(CH, MY, SP)
		**********			
		< CAPACITOR >			
C101	1-164-159-11	CERAMIC	0.1uF	50V	
C102	1-124-907-11	ELECT	10uF	20% 50V	(GA8ES/VA8ES)
C103	1-164-159-11	CERAMIC	0.1uF	50V	
C104	1-124-907-11	ELECT	10uF	20% 50V	
C106	1-162-282-31	CERAMIC	100PF	10% 50V	(GA9ESG)
C107	1-162-282-31	CERAMIC	100PF	10% 50V	(GA9ESG)
C108	1-164-159-11	CERAMIC	0.1uF	50V	
C109	1-164-159-11	CERAMIC	0.1uF	50V	(GA9ESG)
C110	1-124-907-11	ELECT	10uF	20% 50V	(GA9ESG)
C111	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C112	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C113	1-164-159-11	CERAMIC	0.1uF	50V	
C114	1-162-286-31	CERAMIC	220PF	10% 50V	
C115	1-104-905-11	CAPACITOR	0.22F	5.5V	
C116	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C117	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C118	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C120	1-164-159-11	CERAMIC	0.1uF	50V	
C121	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C122	1-164-159-11	CERAMIC	0.1uF	50V	
C123	1-164-159-11	CERAMIC	0.1uF	50V	
C124	1-164-159-11	CERAMIC	0.1uF	50V	
C125	1-164-159-11	CERAMIC	0.1uF	50V	
		< CONNECTOR >			
* CND102	1-564-341-11	PIN, CONNECTOR 7P			(GA9ESG)
* CND102	1-564-339-00	PIN, CONNECTOR 5P			(GA8ES/VA8ES)
* CND103	1-506-503-11	PIN, CONNECTOR 9P			
* CND104	1-564-342-11	PIN, CONNECTOR 8P			
* CNS101	1-565-487-11	CONNECTOR, BOARD TO BOARD 11P			
		< DIODE >			
D101	8-719-313-43	DIODE SEL6210S-TH10			(STANDBY) (VA8ES)
D102	8-719-987-63	DIODE 1N4148M			(GA9ESG)
D103	8-719-118-33	PHOTO DIODE PH302D			(GA9ESG)
D104	8-719-024-99	DIODE 11ES2-NTA2B			

DISPLAY

Ref. No.	Part No.	Description	Remark
D114	8-719-987-63	DIODE 1N4148M (GA9ESG)	
D115	8-719-987-63	DIODE 1N4148M	
D116	8-719-987-63	DIODE 1N4148M	
D120	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D121	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D122	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D123	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D124	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D125	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D126	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D127	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D128	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D129	8-719-053-79	DIODE SE1003-C-TP (GA9ESG)	
D130	8-719-987-63	DIODE 1N4148M	
D131	8-719-987-63	DIODE 1N4148M	
D132	8-719-987-63	DIODE 1N4148M	
D133	8-719-987-63	DIODE 1N4148M	
D134	8-719-987-63	DIODE 1N4148M	
D135	8-719-301-49	DIODE SEL2810A-CD (BASS BOOST)	(VA8ES)
D136	8-719-301-49	DIODE SEL2810A-CD (DIRECT PASS)	(VA8ES)
D137	8-719-301-49	DIODE SEL2810A-CD (INDEX)	
D138	8-719-301-49	DIODE SEL2810A-CD (EQUALIZER)	
D139	8-719-301-49	DIODE SEL2810A-CD (SURROUND)	
D143	8-719-301-49	DIODE SEL2810A-CD (BASS BOOST)	(GA9ESG/GA8ES)
D144	8-719-301-49	DIODE SEL2810A-CD (DIRECT PASS)	(GA9ESG/GA8ES)
D151	8-719-987-63	DIODE 1N4148M (E, EA, AUS, PX)	
D153	8-719-987-63	DIODE 1N4148M (E, EA, AUS, PX)	
D154	8-719-987-63	DIODE 1N4148M (E, EA, AUS, PX)	
D155	8-719-987-63	DIODE 1N4148M (VA8ES)	
D156	8-719-987-63	DIODE 1N4148M (VA8ES)	
		< FILTER >	
FL100	1-517-543-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC100	8-759-075-35	IC TD62C950RF	
IC101	8-759-390-28	IC MB90673PF-G-164-BND	
IC102	8-749-012-72	IC GP1U58X (GA8ES/VA8ES)	
IC103	8-759-240-69	IC TC4069UBP (GA9ESG)	
IC105	8-759-075-35	IC TD62C950RF	
		< COIL >	
L101	1-410-509-11	INDUCTOR 10uH	
L102	1-410-509-11	INDUCTOR 10uH (GA9ESG)	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q100	8-729-900-63	TRANSISTOR DTA124ES	
Q101	8-729-900-36	TRANSISTOR DTC124ES	
Q103	8-729-900-36	TRANSISTOR DTC124ES	
Q104	8-729-900-36	TRANSISTOR DTC124ES	(VA8ES)
Q105	8-729-140-96	TRANSISTOR 2SD774-34	(GA9ESG)
Q106	8-729-900-36	TRANSISTOR DTC124ES	
Q107	8-729-900-36	TRANSISTOR DTC124ES	
Q108	8-729-900-36	TRANSISTOR DTC124ES	
Q109	8-729-900-36	TRANSISTOR DTC124ES	
Q110	8-729-900-36	TRANSISTOR DTC124ES	
Q111	8-729-900-36	TRANSISTOR DTC124ES	
Q112	8-729-900-36	TRANSISTOR DTC124ES	
Q113	8-729-900-36	TRANSISTOR DTC124ES	
Q114	8-729-900-36	TRANSISTOR DTC124ES	(VA8ES)
Q115	8-729-900-63	TRANSISTOR DTA124ES	
Q116	8-729-900-63	TRANSISTOR DTA124ES	
		< RESISTOR >	
R103	1-247-807-31	CARBON 100 5%	1/4W (GA8ES/VA8ES)
R104	1-249-425-11	CARBON 4.7K 5%	1/4W
R105	1-249-417-11	CARBON 1K 5%	1/4W
R106	1-249-411-11	CARBON 330 5%	1/4W (VA8ES)
R107	1-249-419-11	CARBON 1.5K 5%	1/4W
R108	1-249-437-11	CARBON 47K 5%	1/4W
R109	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R110	1-247-895-00	CARBON 470K 5%	1/4W (GA9ESG)
R111	1-249-433-11	CARBON 22K 5%	1/4W (GA9ESG)
R112	1-247-903-00	CARBON 1M 5%	1/4W (GA9ESG)
R113	1-249-435-11	CARBON 33K 5%	1/4W (GA9ESG)
R114	1-249-397-11	CARBON 22 5%	1/4W (GA9ESG)
R115	1-249-399-11	CARBON 33 5%	1/4W (GA9ESG)
R116	1-249-429-11	CARBON 10K 5%	1/4W
R118	1-249-429-11	CARBON 10K 5%	1/4W
R119	1-249-437-11	CARBON 47K 5%	1/4W
R120	1-249-437-11	CARBON 47K 5%	1/4W
R121	1-249-437-11	CARBON 47K 5%	1/4W
R122	1-249-385-11	CARBON 2.2 5%	1/6W
R123	1-249-429-11	CARBON 10K 5%	1/4W
R124	1-249-429-11	CARBON 10K 5%	1/4W
R125	1-249-429-11	CARBON 10K 5%	1/4W
R126	1-249-411-11	CARBON 330 5%	1/4W
R127	1-249-385-11	CARBON 2.2 5%	1/6W
R128	1-249-411-11	CARBON 330 5%	1/4W
R129	1-249-411-11	CARBON 330 5%	1/4W
R130	1-249-433-11	CARBON 22K 5%	1/4W

Ref. No.	Part No.	Description			Remark
R131	1-249-433-11	CARBON	22K	5%	1/4W
R132	1-249-433-11	CARBON	22K	5%	1/4W
R133	1-249-433-11	CARBON	22K	5%	1/4W
R134	1-249-433-11	CARBON	22K	5%	1/4W
R135	1-249-433-11	CARBON	22K	5%	1/4W
R141	1-249-417-11	CARBON	1K	5%	1/4W
R142	1-249-417-11	CARBON	1K	5%	1/4W
R143	1-249-417-11	CARBON	1K	5%	1/4W
R144	1-249-417-11	CARBON	1K	5%	1/4W
R147	1-249-417-11	CARBON	1K	5%	1/4W
R148	1-249-417-11	CARBON	1K	5%	1/4W
R149	1-249-417-11	CARBON	1K	5%	1/4W
R150	1-249-417-11	CARBON	1K	5%	1/4W
R163	1-249-441-11	CARBON	100K	5%	1/4W
R164	1-249-441-11	CARBON	100K	5%	1/4W
R165	1-249-441-11	CARBON	100K	5%	1/4W
R167	1-247-903-00	CARBON	1M	5%	1/4W(GA9ESG)
R189	1-249-429-11	CARBON	10K	5%	1/4W
R191	1-249-417-11	CARBON	1K	5%	1/4W
R192	1-249-417-11	CARBON	1K	5%	1/4W
R194	1-249-441-11	CARBON	100K	5%	1/4W
R195	1-249-441-11	CARBON	100K	5%	1/4W
R196	1-249-433-11	CARBON	22K	5%	1/4W
R197	1-249-433-11	CARBON	22K	5%	1/4W
R198	1-249-441-11	CARBON	100K	5%	1/4W
R233	1-249-417-11	CARBON	1K	5%	1/4W
R234	1-249-417-11	CARBON	1K	5%	1/4W
R235	1-249-417-11	CARBON	1K	5%	1/4W (GA8ES/VA8ES)
R236	1-249-417-11	CARBON	1K	5%	1/4W
R237	1-249-417-11	CARBON	1K	5%	1/4W
R238	1-249-417-11	CARBON	1K	5%	1/4W
R239	1-249-417-11	CARBON	1K	5%	1/4W

< VARIABLE RESISTOR >

RV101	1-467-808-21	ENCODER, ROTARY (FUNCTION)
RV102	1-467-809-11	ENCODER, ROTARY (PARAMETER EQ LEVEL CHARACTOR)
RV103	1-467-809-11	ENCODER, ROTARY (LEVEL FREQUENCY POSITION)

< SWITCH >

S100	1-554-303-21	SWITCH, TACTILE (DPC MODE)
S101	1-554-303-21	SWITCH, TACTILE (MEMORY) (GA9ESG/GA8ES)
S103	1-554-303-21	SWITCH, TACTILE (INDEX +) (GA9ESG/GA8ES)
S104	1-554-303-21	SWITCH, TACTILE (INDEX -) (GA9ESG/GA8ES)
S105	1-554-303-21	SWITCH, TACTILE (GENRE)
S106	1-554-303-21	SWITCH, TACTILE (CTR MODE)
S107	1-554-303-21	SWITCH, TACTILE (DIRECT TUNING) (GA9ESG/GA8ES)
S108	1-554-303-21	SWITCH, TACTILE (FM MODE) (GA9ESG/GA8ES)
S109	1-554-303-21	SWITCH, TACTILE (PRESET +) (GA9ESG/GA8ES)
S110	1-554-303-21	SWITCH, TACTILE (PRESET -) (GA9ESG/GA8ES)
S111	1-554-303-21	SWITCH, TACTILE (MODE)
S112	1-554-303-21	SWITCH, TACTILE (FUNCTION MODE)
S113	1-554-303-21	SWITCH, TACTILE (1) (GA9ESG/GA8ES)
S114	1-554-303-21	SWITCH, TACTILE (4) (GA9ESG/GA8ES)
S115	1-554-303-21	SWITCH, TACTILE (7) (GA9ESG/GA8ES)
S116	1-554-303-21	SWITCH, TACTILE (SHIFT) (GA9ESG/GA8ES)
S117	1-554-303-21	SWITCH, TACTILE (DIMMER)
S118	1-554-303-21	SWITCH, TACTILE (BAND)
S119	1-554-303-21	SWITCH, TACTILE (BASS BOOST) (GA9ESG/GA8ES)
S120	1-554-303-21	SWITCH, TACTILE (2) (GA9ESG/GA8ES)
S121	1-554-303-21	SWITCH, TACTILE (5) (GA9ESG/GA8ES)
S122	1-554-303-21	SWITCH, TACTILE (8) (GA9ESG/GA8ES)
S123	1-554-303-21	SWITCH, TACTILE (0) (GA9ESG/GA8ES)
S124	1-554-303-21	SWITCH, TACTILE (DISPLAY)
S125	1-554-303-21	SWITCH, TACTILE (SLOPE)
S126	1-554-303-21	SWITCH, TACTILE (DIRECT PASS) (GA9ESG/GA8ES)
S127	1-554-303-21	SWITCH, TACTILE (3) (GA9ESG/GA8ES)
S128	1-554-303-21	SWITCH, TACTILE (6) (GA9ESG/GA8ES)
S129	1-554-303-21	SWITCH, TACTILE (9) (GA9ESG/GA8ES)
S131	1-554-303-21	SWITCH, TACTILE (FM/AM) (GA9ESG/GA8ES)
S132	1-554-303-21	SWITCH, TACTILE (SOUND FIELD ON/OFF)
S133	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER) (VA8ES)
S134	1-554-303-21	SWITCH, TACTILE (POWER) (GA9ESG/GA8ES)
S135	1-762-268-11	SWITCH, ROTARY (SPEAKERS)
S139	1-554-303-21	SWITCH, TACTILE (BASS BOOST) (VA8ES)
S140	1-554-303-21	SWITCH, TACTILE (DIRECT PASS) (VA8ES)

< VIBRATOR >

X100	1-567-819-11	VIBRATOR, CERAMIC (4MHz)

****

*	1-661-560-11	FRONT VIDEO BOARD

****

< CONECTOR >

CNE290	1-770-968-11	PIN, CONNECTOR (PCB) (V TYPE) 8P

< JACK >

J299	1-764-190-11	JACK, PIN 3P (S VIDEO) (VIDEO, AUDIO)

FRONT VIDEO | HP | INPUT

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R248	1-249-403-11	CARBON	68	5% 1/4W	
R298	1-249-403-11	CARBON	68	5% 1/4W	
R299	1-249-403-11	CARBON	68	5% 1/4W	
**********					
*	1-661-559-11	HP BOARD			
		********			
		< CONNECTOR >			
CNE100	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			
		< JACK >			
J100	1-568-519-41	JACK, LARGE TYPE (PHONES)			
		< RESISTOR >			
R178	1-247-749-11	CARBON	560	5% 1/2W	
R179	1-247-749-11	CARBON	560	5% 1/2W	
**********					
*	A-4390-349-A	INPUT BOARD, COMPLETE (GA9ESG/GA8ES)			
*	A-4390-374-A	INPUT BOARD, COMPLETE (VA8ES)			
		**********			
	1-537-770-21	TERMINAL BOARD, GROUND			
		< CAPACITOR >			
C001	1-126-047-81	ELECT	4.7uF	20% 50V	
C002	1-110-335-11	MYLAR	100PF	5% 50V	
C003	1-107-608-11	CERAMIC	68PF	5% 500V	
C004	1-107-597-11	CERAMIC	22PF	5% 500V	
C005	1-124-994-11	ELECT	100uF	20% 10V	
C008	1-126-051-11	ELECT	47uF	20% 50V	
C014	1-102-937-00	CERAMIC	4.0PF	+-0.25PF 50V	
C201	1-126-047-81	ELECT	4.7uF	20% 50V	
C202	1-102-106-00	CERAMIC	100PF	10% 50V	
C203	1-162-282-31	CERAMIC	100PF	10% 50V	
C204	1-126-008-51	ELECT	47uF	20% 16V	
C205	1-130-480-00	MYLAR	0.0056uF	5% 50V	
C206	1-130-473-00	MYLAR	0.0015uF	5% 50V	
C207	1-126-044-11	ELECT	1uF	20% 50V	
C208	1-126-008-51	ELECT	47uF	20% 16V	
C211	1-126-048-81	ELECT	10uF	20% 50V	
C213	1-126-048-81	ELECT	10uF	20% 50V	
C248	1-126-023-11	ELECT	100uF	20% 25V (GA9ESG/GA8ES)	
C248	1-124-478-11	ELECT	100uF	20% 25V (VA8ES)	
C249	1-126-023-11	ELECT	100uF	20% 25V (GA9ESG/GA8ES)	
C249	1-124-478-11	ELECT	100uF	20% 25V (VA8ES)	
C251	1-126-047-81	ELECT	4.7uF	20% 50V	
C252	1-102-106-00	CERAMIC	100PF	10% 50V	
C253	1-162-282-31	CERAMIC	100PF	10% 50V	
C254	1-126-008-51	ELECT	47uF	20% 16V	
C255	1-130-480-00	MYLAR	0.0056uF	5% 50V	
C256	1-130-473-00	MYLAR	0.0015uF	5% 50V	
C257	1-126-044-11	ELECT	1uF	20% 50V	
C258	1-126-008-51	ELECT	47uF	20% 16V	
C261	1-126-048-81	ELECT	10uF	20% 50V	
C263	1-126-048-81	ELECT	10uF	20% 50V	
C297	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C601	1-126-047-81	ELECT	4.7uF	20% 50V	
C602	1-110-335-11	MYLAR	100PF	5% 50V	
C603	1-107-608-11	CERAMIC	68PF	5% 500V	
C604	1-107-597-11	CERAMIC	22PF	5% 500V	
C605	1-124-994-11	ELECT	100uF	20% 10V	
C608	1-126-051-11	ELECT	47uF	20% 50V	
C614	1-102-937-00	CERAMIC	4.0PF	+-0.25PF 50V	
C651	1-126-047-81	ELECT	4.7uF	20% 50V	
C652	1-110-335-11	MYLAR	100PF	5% 50V	
C653	1-107-608-11	CERAMIC	68PF	5% 500V	
C654	1-107-597-11	CERAMIC	22PF	5% 500V	
C655	1-124-994-11	ELECT	100uF	20% 10V	
C664	1-102-937-00	CERAMIC	4.0PF	+-0.25PF 50V	
C920	1-136-153-00	FILM	0.01uF	5% 50V	
C921	1-136-153-00	FILM	0.01uF	5% 50V	
C922	1-136-153-00	FILM	0.01uF	5% 50V	
C975	1-124-563-11	ELECT	2200uF	20% 25V (GA9ESG/GA8ES)	
C975	1-126-029-11	ELECT	3300uF	20% 25V (VA8ES)	
C976	1-124-563-11	ELECT	2200uF	20% 25V (GA9ESG/GA8ES)	
C976	1-126-029-11	ELECT	3300uF	20% 25V (VA8ES)	
C977	1-124-563-11	ELECT	2200uF	20% 25V (GA9ESG/GA8ES)	
C977	1-126-029-11	ELECT	3300uF	20% 25V (VA8ES)	
C978	1-126-023-11	ELECT	100uF	20% 25V (GA9ESG/GA8ES)	
C978	1-124-478-11	ELECT	100uF	20% 25V (VA8ES)	
C979	1-126-023-11	ELECT	100uF	20% 25V (GA9ESG/GA8ES)	
C979	1-124-478-11	ELECT	100uF	20% 25V (VA8ES)	

Ref. No.	Part No.	Description	Remark
C980	1-126-023-11	ELECT 100uF 20% 25V	(GA9ESG/GA8ES)
C980	1-124-478-11	ELECT 100uF 20% 25V	(VA8ES)
		< CONNEVTOR >	
CNE204	1-770-970-11	PIN, CONNECTOR(PCB)(V TYPE)10P	
CNE939	1-770-965-11	PIN, CONNECTOR (PCB)(V TYPE)5P	
CNL903	1-778-769-11	PIN, CONNECTOR	
CNL904	1-778-769-11	PIN, CONNECTOR	
CNP201	1-695-091-11	PIN, CONNECTOR (PC BOARD) 15P	
CNP203	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P	
CNP206	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P	
CNP504	1-750-180-11	PIN, CONNECTOR (PC BOARD) 5P	
CNP602	1-778-458-11	CONNECTOR, BOARD TO BOARD 12P	
		< DIODE >	
D908	8-719-024-99	DIODE 11ES2-NTA2B	
D909	8-719-024-99	DIODE 11ES2-NTA2B	
D910	8-719-024-99	DIODE 11ES2-NTA2B	
D911	8-719-024-99	DIODE 11ES2-NTA2B	
D912	8-719-024-99	DIODE 11ES2-NTA2B	
D913	8-719-024-99	DIODE 11ES2-NTA2B	
D914	8-719-024-99	DIODE 11ES2-NTA2B	
D915	8-719-024-99	DIODE 11ES2-NTA2B	
		< IC >	
IC001	8-749-011-16	IC STK350-230	
IC201	8-759-636-74	IC M5218AP-22	
IC202	8-759-805-14	IC LC7822	
IC203	8-759-636-74	IC M5218AP-22	
IC253	8-759-636-74	IC M5218AP-22	
IC601	8-749-011-16	IC STK350-230	
IC651	8-749-011-16	IC STK350-230	
IC971	8-759-231-58	IC TA7812S	
IC972	8-759-604-45	IC M5F79M12L	
IC973	8-759-701-56	IC NJM78M05FA	
		< JACK >	
J201	1-770-719-11	JACK, PIN 2P (PHONO) (GA9ESG/GA8ES)	
J201	1-770-720-11	JACK, PIN 4P (PHONO, TUNER) (VA8ES)	
J202	1-766-394-11	JACK, PIN 6P (DAT/MD, CD)	
J203	1-766-394-11	JACK, PIN 6P (TAPE)	
J204	1-766-397-11	JACK, PIN 4P (5.1 INPUT)	
J205	1-766-397-11	JACK, PIN 4P (WOOFER, CENTER, REAR)	
		< TRANSISTOR >	
Q003	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q201	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q202	8-729-900-63	TRANSISTOR DTA124ES	
Q251	8-729-141-30	TRANSISTOR 2SC3623A-LK	
		< RESISTOR >	
R001	1-249-438-11	CARBON 56K 5% 1/4W	
R002	1-249-198-11	CARBON 330 5% 1/3W	
R003	1-249-413-11	CARBON 470 5% 1/4W	
R004	1-249-407-11	CARBON 150 5% 1/4W	
R008	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-493-11	CARBON 56K 5% 1/3W	
R027	1-249-417-11	CARBON 1K 5% 1/4W	
R201	1-249-409-11	CARBON 220 5% 1/4W	
R202	1-249-441-11	CARBON 100K 5% 1/4W	
R203	1-249-441-11	CARBON 100K 5% 1/4W	
R204	1-249-416-11	CARBON 820 5% 1/4W	
R205	1-247-897-11	CARBON 560K 5% 1/4W	
R206	1-249-437-11	CARBON 47K 5% 1/4W	
R207	1-249-441-11	CARBON 100K 5% 1/4W	
R208	1-247-807-31	CARBON 100 5% 1/4W	
R209	1-249-417-11	CARBON 1K 5% 1/4W	(VA8ES)
R210	1-249-417-11	CARBON 1K 5% 1/4W	
R211	1-249-417-11	CARBON 1K 5% 1/4W	
R212	1-249-417-11	CARBON 1K 5% 1/4W	
R213	1-249-417-11	CARBON 1K 5% 1/4W	
R214	1-249-417-11	CARBON 1K 5% 1/4W	
R215	1-249-441-11	CARBON 100K 5% 1/4W	
R216	1-249-437-11	CARBON 47K 5% 1/4W	
R217	1-249-437-11	CARBON 47K 5% 1/4W	
R218	1-249-441-11	CARBON 100K 5% 1/4W	
R220	1-249-425-11	CARBON 4.7K 5% 1/4W	
R228	1-249-441-11	CARBON 100K 5% 1/4W	
R232	1-249-409-11	CARBON 220 5% 1/4W	
R240	1-249-417-11	CARBON 1K 5% 1/4W	
R241	1-249-417-11	CARBON 1K 5% 1/4W	
R242	1-249-417-11	CARBON 1K 5% 1/4W	
R243	1-247-807-31	CARBON 100 5% 1/4W	
R244	1-247-807-31	CARBON 100 5% 1/4W	
R247	1-249-417-11	CARBON 1K 5% 1/4W	
R251	1-249-409-11	CARBON 220 5% 1/4W	
R252	1-249-441-11	CARBON 100K 5% 1/4W	
R253	1-249-441-11	CARBON 100K 5% 1/4W	
R254	1-249-416-11	CARBON 820 5% 1/4W	
R255	1-247-897-11	CARBON 560K 5% 1/4W	
R256	1-249-437-11	CARBON 47K 5% 1/4W	
R257	1-249-441-11	CARBON 100K 5% 1/4W	
R258	1-247-807-31	CARBON 100 5% 1/4W	
R259	1-249-417-11	CARBON 1K 5% 1/4W	(VA8ES)
R260	1-249-417-11	CARBON 1K 5% 1/4W	
R261	1-249-417-11	CARBON 1K 5% 1/4W	

INPUT | MEM | POWER TRANSFORMER A

Ref. No.	Part No.	Description			Remark
R262	1-249-417-11	CARBON	1K	5%	1/4W
R263	1-249-417-11	CARBON	1K	5%	1/4W
R264	1-249-417-11	CARBON	1K	5%	1/4W
R265	1-249-441-11	CARBON	100K	5%	1/4W
R266	1-249-437-11	CARBON	47K	5%	1/4W
R267	1-249-437-11	CARBON	47K	5%	1/4W
R268	1-249-441-11	CARBON	100K	5%	1/4W
R270	1-249-425-11	CARBON	4.7K	5%	1/4W
R278	1-249-437-11	CARBON	47K	5%	1/4W
R282	1-249-409-11	CARBON	220	5%	1/4W
R290	1-249-417-11	CARBON	1K	5%	1/4W
R291	1-249-417-11	CARBON	1K	5%	1/4W
R292	1-249-417-11	CARBON	1K	5%	1/4W
R297	1-249-425-11	CARBON	4.7K	5%	1/4W
R601	1-249-438-11	CARBON	56K	5%	1/4W
R602	1-249-198-11	CARBON	330	5%	1/3W
R603	1-249-413-11	CARBON	470	5%	1/4W
R614	1-249-493-11	CARBON	56K	5%	1/3W
R651	1-249-438-11	CARBON	56K	5%	1/4W
R652	1-249-198-11	CARBON	330	5%	1/3W
R653	1-249-413-11	CARBON	470	5%	1/4W
R664	1-249-493-11	CARBON	56K	5%	1/3W
R727	1-249-417-11	CARBON	1K	5%	1/4W
R777	1-249-417-11	CARBON	1K	5%	1/4W
		< SWITCH >			
S202	1-692-196-11	SWITCH, SLIDE (LOW FILTER) (GA9ESG/GA8ES)			
S203	1-692-196-11	SWITCH, SLIDE (POWER SWAP) (GA9ESG/GA8ES)			
**********					
*	1-661-580-11	MEM BOARD (GA9ESG)			
		*********			
		< CAPACITOR >			
C876	1-104-905-11	CAPACITOR	0.22F		5.5V
C888	1-164-159-11	CERAMIC	0.1uF		50V
C889	1-164-159-11	CERAMIC	0.1uF		50V
C890	1-104-664-11	ELECT	47uF	20%	16V
C891	1-164-159-11	CERAMIC	0.1uF		50V
C894	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CNS808	1-750-983-11	CONNECTOR, BOARD TO BOARD 15P			
CNS809	1-778-447-11	CONNECTOR, BOARD TO BOARD 13P			
		< IC >			
IC816	8-759-916-94	IC SN74HC373AN			
IC818	8-759-916-94	IC SN74HC373AN			

Ref. No.	Part No.	Description			Remark
IC820	8-759-395-26	IC MX23C4096-12-SOZ-1024			
IC821	8-759-289-94	IC LH5160TF			
IC822	8-759-289-94	IC LH5160TF			
		< COIL >			
L804	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
R8012	1-249-429-11	CARBON	10K	5%	1/4W
R8013	1-249-429-11	CARBON	10K	5%	1/4W
R8014	1-249-429-11	CARBON	10K	5%	1/4W
R8018	1-247-807-31	CARBON	100	5%	1/4W
**********					
*	1-661-571-11	POWER TRANSFORMER A BOARD			
		**********			
	1-533-399-31	HOLDER, FUSE			
		< CAPACITOR >			
C996	1-106-383-00	MYLAR	0.047uF	5%	200V
C997	1-106-383-00	MYLAR	0.047uF	5%	200V
		< CONNECTOR >			
CNE932	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
* CNV931	1-565-395-11	PIN, CONNECTOR 3P			
		< DIODE >			
D970	8-719-028-23	DIODE D3SBA20-4101			
		< FUSE >			
⚠F911	1-532-505-51	FUSE, TIME-LAG (5A 250V) (EXCEPT US, CND)			
⚠F911	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA. 5) (5A 125V) (US, CND)			
⚠F912	1-532-503-51	FUSE, TIME-LAG (1.6A 250V) (EXCEPT US, CND)			
⚠F912	1-533-614-11	FUSE, GLASS CYLINDERICAL (1.6A 125V) (US, CND)			
⚠F913	1-532-503-51	FUSE, TIME-LAG (1.6A 250V) (EXCEPT US, CND)			
⚠F913	1-533-614-11	FUSE, GLASS CYLINDERICAL (1.6A 125V) (US, CND)			
⚠F914	1-532-505-51	FUSE, TIME-LAG (5A 250V) (EXCEPT US, CND)			
⚠F914	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA. 5) (5A 125V) (US, CND)			
**********					

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER TRANSFORMER B | REMOTE CONTROL | BUTTON | SENSOR

Ref. No.	Part No.	Description			Remark
*	1-661-572-11	POWER TRANSFORMER B BOARD			
		**********			
		< CAPACITOR >			
C981	1-126-964-11	ELECT	10uF	20% 50V	
C982	1-126-964-11	ELECT	10uF	20% 50V	
C989	1-128-553-51	ELECT	220uF	20% 63V	(GA9ESG/GA8ES)
C989	1-128-555-91	ELECT	470uF	20% 63V	(VA8ES)
		< CONNECTOR >			
CNE934	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			(GA9ESG/GA8ES)
CNE934	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			(VA8ES)
CNV953	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D916	8-719-987-63	DIODE	1N4148M		(GA9ESG/GA8ES)
D917	8-719-014-66	DIODE	UZP-5.6B		
D918	8-719-024-99	DIODE	11ES2-NTA2B		
D919	8-719-024-99	DIODE	11ES2-NTA2B		
D974	8-719-002-76	DIODE	UZL-36H		
		< TRANSISTOR >			
Q971	8-729-140-96	TRANSISTOR	2SD774-34		
		< RESISTOR >			
⚠R975	1-249-401-11	CARBON	47	5% 1/4W F	(GA9ESG)
⚠R975	1-249-405-11	CARBON	100	5% 1/4W F	(GA8ES/VA8ES)
R976	1-249-426-11	CARBON	5.6K	5% 1/4W	
		< RELAY >			
RY902	1-515-894-11	RELAY (US, E, EA, AUS, PX)			
RY903	1-515-918-11	RELAY (CND)			
RY904	1-515-918-11	RELAY (CND)			
		< TRANSFORMER >			
⚠T1	1-429-587-11	TRANSFORMER, POWER (US)			
⚠T1	1-429-588-11	TRANSFORMER, POWER (E, EA, PX)			
⚠T1	1-429-591-11	TRANSFORMER, POWER (VA8ES)			
⚠T1	1-429-592-11	TRANSFORMER, POWER (AUS)			
⚠T1	1-429-595-11	TRANSFORMER, POWER (CND)			

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Ref. No.	Part No.	Description			Remark
*	A-4357-534-A	REMOTE CONTROL BOARD, COMPLETE (GA9ESG)			
		**********			
		BUTTON BOARD			
		**********			
		SENSOR BOARD			
		**********			
*	4-921-941-01	CUSHION (FL)			
		< CAPACITOR >			
C1	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C2	1-135-155-21	TANTALUM CHIP	4.7uF	10% 16V	
C3	1-135-155-21	TANTALUM CHIP	4.7uF	10% 16V	
C4	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C5	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C6	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C7	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C8	1-107-854-11	TANTAL. CHIP	68uF	20% 6.3V	
C10	1-135-157-21	TANTALUM CHIP	10uF	20% 6.3V	
C11	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C13	1-164-346-11	CERAMIC CHIP	1uF	16V	
C14	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C15	1-163-018-00	CERAMIC CHIP	0.0056uF	5% 50V	
C16	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C17	1-165-319-11	CERAMIC CHIP	0.1uF	50V	
C18	1-164-346-11	CERAMIC CHIP	1uF	16V	
C19	1-163-104-00	CERAMIC CHIP	30PF	5% 50V	
C20	1-163-104-00	CERAMIC CHIP	30PF	5% 50V	
		< CONNECTOR >			
* CNP1	1-564-336-00	PIN, CONNECTOR 2P			
		< SENSOR >			
CP1	1-810-891-11	SENSOR			
CP2	1-810-891-21	SENSOR			
		< DIODE >			
D1	8-719-938-75	DIODE	SB05-05CP		
D2	8-719-800-76	DIODE	1SS226		
D4	8-719-016-74	DIODE	1SS352		
		< IC >			
IC3	8-759-711-50	IC	NJU7022M		
IC4	8-759-194-49	IC	S-8100B		
IC5	8-759-711-50	IC	NJU7022M		
IC6	8-759-242-74	IC	TC7W04F		
IC7	8-759-194-47	IC	S-8435GF-WD-T1		

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REMOTE CONTROL | BUTTON | SENSOR | S VIDEO

Ref. No.	Part No.	Description			Remark
IC8	8-759-281-68	IC uPD78011BGC-630-AB8			
IC9	8-759-009-08	IC MC14060BF			
		< COIL >			
L1	1-406-970-11	COIL, CHOKE 470uH			
		< TRANSISTOR >			
Q1	8-729-807-86	TRANSISTOR 2SB1295-UL5			
Q2	8-729-207-56	TRANSISTOR RN1402			
		< RESISTOR >			
R1	1-216-073-00	METAL CHIP	10K	5%	1/10W
R2	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R3	1-216-073-00	METAL CHIP	10K	5%	1/10W
R4	1-216-073-00	METAL CHIP	10K	5%	1/10W
R5	1-216-073-00	METAL CHIP	10K	5%	1/10W
R6	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R7	1-216-073-00	METAL CHIP	10K	5%	1/10W
R8	1-216-109-00	METAL CHIP	330K	5%	1/10W
R9	1-216-109-00	METAL CHIP	330K	5%	1/10W
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W
R11	1-216-073-00	METAL CHIP	10K	5%	1/10W
R12	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R13	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R14	1-216-083-00	METAL CHIP	27K	5%	1/10W
R15	1-216-075-00	METAL CHIP	12K	5%	1/10W
R16	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R17	1-216-073-00	METAL CHIP	10K	5%	1/10W
R18	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R19	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R20	1-216-292-11	METAL GLAZE	8.2M	5%	1/8W
R21	1-216-292-11	METAL GLAZE	8.2M	5%	1/8W
R22	1-216-073-00	METAL CHIP	10K	5%	1/10W
R23	1-216-073-00	METAL CHIP	10K	5%	1/10W
R24	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R25	1-216-073-00	METAL CHIP	10K	5%	1/10W
R26	1-216-109-00	METAL CHIP	330K	5%	1/10W
R27	1-216-073-00	METAL CHIP	10K	5%	1/10W
R28	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R29	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R30	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R31	1-216-113-00	METAL CHIP	470K	5%	1/10W
R32	1-216-106-00	METAL CHIP	240K	5%	1/10W
R33	1-216-099-00	METAL CHIP	120K	5%	1/10W
R34	1-216-092-00	METAL GLAZE	62K	5%	1/10W
R35	1-216-084-00	METAL CHIP	30K	5%	1/10W
R36	1-216-077-00	METAL CHIP	15K	5%	1/10W
R37	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R38	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R39	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R40	1-216-113-00	METAL CHIP	470K	5%	1/10W
R41	1-216-106-00	METAL CHIP	240K	5%	1/10W
R42	1-216-099-00	METAL CHIP	120K	5%	1/10W
R43	1-216-092-00	METAL GLAZE	62K	5%	1/10W
R44	1-216-084-00	METAL CHIP	30K	5%	1/10W
R45	1-216-077-00	METAL CHIP	15K	5%	1/10W
R46	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R47	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R48	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R49	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R50	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R51	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R52	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R53	1-216-045-00	METAL CHIP	680	5%	1/10W
R54	1-216-045-00	METAL CHIP	680	5%	1/10W
		< RF MODULATOR >			
RF1	1-239-788-11	ENCAPSULATED COMPONENT			
		< VARIABLE RESISTOR >			
RV1	1-238-859-11	RES, ADJ, CERMET 100K			
RV2	1-238-859-11	RES, ADJ, CERMET 100K			
		< SWITCH >			
S1	1-692-459-11	SWITCH (CLICK SWITCH)			
S2	1-692-771-11	SWITCH, DIP (4P) (SECURITY SWITCH)			
		< VIBRATOR >			
X1	1-578-713-21	VIBLATOR, CERAMIC (4.19MHz)			
**********					
*	A-4390-363-A	S VIDEO BOARD, COMPLETE (GA9ESG)			
*	A-4390-398-A	S VIDEO BOARD, COMPLETE (GA8ES/VA8ES)			
		**********			
		< CAPACITOR >			
C801	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C802	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C804	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C805	1-136-165-00	FILM	0.1uF	5%	50V
C807	1-164-095-11	CERAMIC	0.01uF	10%	16V (GA9ESG)
C809	1-164-095-11	CERAMIC	0.01uF	10%	16V
C810	1-124-903-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C814	1-136-165-00	FILM	0.1uF	5%	50V
C817	1-164-159-11	CERAMIC	0.1uF		50V
C820	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C821	1-164-095-11	CERAMIC	0.01uF	10%	16V
C822	1-124-903-11	ELECT	1uF	20%	50V
C823	1-136-165-00	FILM	0.1uF	5%	50V
C825	1-164-095-11	CERAMIC	0.01uF	10%	16V
C826	1-124-907-11	ELECT	10uF	20%	50V
C827	1-124-907-11	ELECT	10uF	20%	50V
C828	1-124-907-11	ELECT	10uF	20%	50V
C829	1-124-903-11	ELECT	1uF	20%	50V
C832	1-162-306-11	CERAMIC	0.01uF	30%	16V (GA9ESG)
C833	1-124-903-11	ELECT	1uF	20%	50V
C834	1-136-165-00	FILM	0.1uF	5%	50V
C839	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C840	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C842	1-164-095-11	CERAMIC	0.01uF	10%	16V
C845	1-136-165-00	FILM	0.1uF	5%	50V
C846	1-104-664-11	ELECT	47uF	20%	16V
C861	1-162-306-11	CERAMIC	0.01uF	30%	16V (GA9ESG)
C869	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C870	1-124-903-11	ELECT	1uF	20%	50V (GA9ESG)
C877	1-162-306-11	CERAMIC	0.01uF	30%	16V (GA9ESG)
C878	1-124-903-11	ELECT	1uF	20%	50V
C880	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C881	1-136-161-00	FILM	0.047uF	5%	50V (GA9ESG)
C893	1-124-907-11	ELECT	10uF	20%	50V (GA9ESG)
C895	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
		< CONNECTOR >			
* CND801	1-564-340-61	PIN, CONNECTOR 6P			
* CND802	1-564-342-61	PIN, CONNECTOR 8P (GA9ESG)			
CNE807	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
CNS803	1-695-094-11	SOCKET, CONNECTOR 11P (GA9ESG)			
CNS805	1-695-093-11	SOCKET, CONNECTOR 9P			
* CNS810	1-580-974-11	CONNECTOR, BOARD TO BOARD (GA9ESG)			
CNS811	1-778-394-11	CONNECTOR, BOARD TO BOARD 13P (GA9ESG)			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D802	8-719-987-63	DIODE 1N4148M (GA9ESG)	
D803	8-719-987-63	DIODE 1N4148M (GA9ESG)	
D804	8-719-987-63	DIODE 1N4148M (GA9ESG)	
D805	8-719-024-99	DIODE 11ES2-NTA2B (GA9ESG)	
D806	8-719-987-63	DIODE 1N4148M (GA9ESG)	
D810	8-719-987-63	DIODE 1N4148M (GA9ESG)	
		< FRONTEND >	
FE801	1-233-348-11	ENCAPSULATED COMPONENT (GA9ESG)	
		< IC >	
IC801	8-759-916-16	IC SN74HC08AN (GA9ESG)	
IC803	8-759-061-95	IC SN761200N	
IC804	8-759-061-95	IC SN761200N	
IC809	8-759-343-23	IC MB90T673PF-G-BND (GA9ESG)	
IC812	8-759-917-18	IC SN74HCU04AN (GA9ESG)	
IC815	8-759-394-96	IC S-1810CF-049 (GA9ESG)	
		< JACK >	
J801	1-507-967-11	JACK (RC ANT) (GA9ESG)	
J802	1-507-967-11	JACK (S-LINK) (GA9ESG)	
J803	1-507-967-11	JACK (IR OUT) (GA9ESG)	
J804	1-537-943-11	TERMINAL, S (TV)	
J805	1-764-676-11	CONNECTOR (ROUND TYPE)	(LD IN, VIDEO2 (OUT))
J806	1-764-676-11	CONNECTOR (ROUND TYPE)	(VIDEO2 (IN), VIDEO1 (OUT))
J807	1-764-676-11	CONNECTOR (ROUND TYPE)	(VIDEO1 (IN), MONITOR OUT)
		< COIL >	
L803	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q801	8-729-900-36	TRANSISTOR DTC124ES (GA9ESG)	
Q804	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q807	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q808	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q809	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q810	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q811	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q812	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q813	8-729-900-36	TRANSISTOR DTC124ES (GA8ES/VA8ES)	

S VIDEO SAM

Ref. No.	Part No.	Description			Remark
Q820	8-729-620-05	TRANSISTOR 2SC2603-EF (GA9ESG)			
		< RESISTOR >			
R801	1-247-903-00	CARBON	1M	5%	1/4W(GA9ESG)
R802	1-247-903-00	CARBON	1M	5%	1/4W(GA9ESG)
R803	1-249-441-11	CARBON	100K	5%	1/4W(GA9ESG)
R804	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R805	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R806	1-247-807-31	CARBON	100	5%	1/4W
R808	1-249-419-11	CARBON	1.5K	5%	1/4W(GA9ESG)
R809	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R815	1-249-403-11	CARBON	68	5%	1/4W
R818	1-249-403-11	CARBON	68	5%	1/4W
R819	1-249-403-11	CARBON	68	5%	1/4W
R820	1-249-409-11	CARBON	220	5%	1/4W
R821	1-249-409-11	CARBON	220	5%	1/4W
R823	1-249-409-11	CARBON	220	5%	1/4W
R824	1-249-409-11	CARBON	220	5%	1/4W
R825	1-249-403-11	CARBON	68	5%	1/4W
R826	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R827	1-249-403-11	CARBON	68	5%	1/4W
R828	1-249-411-11	CARBON	330	5%	1/4W
R829	1-249-411-11	CARBON	330	5%	1/4W
R830	1-249-411-11	CARBON	330	5%	1/4W
R831	1-249-403-11	CARBON	68	5%	1/4W
R833	1-249-426-11	CARBON	5.6K	5%	1/4W
R834	1-249-426-11	CARBON	5.6K	5%	1/4W
R835	1-249-426-11	CARBON	5.6K	5%	1/4W
R838	1-249-403-11	CARBON	68	5%	1/4W
R839	1-249-403-11	CARBON	68	5%	1/4W
R840	1-249-403-11	CARBON	68	5%	1/4W
R841	1-249-403-11	CARBON	68	5%	1/4W
R843	1-249-419-11	CARBON	1.5K	5%	1/4W
R844	1-249-419-11	CARBON	1.5K	5%	1/4W
R845	1-249-419-11	CARBON	1.5K	5%	1/4W
R847	1-249-403-11	CARBON	68	5%	1/4W
R848	1-249-403-11	CARBON	68	5%	1/4W
R849	1-249-403-11	CARBON	68	5%	1/4W
R851	1-249-403-11	CARBON	68	5%	1/4W
R854	1-249-430-11	CARBON	12K	5%	1/4W
R855	1-249-430-11	CARBON	12K	5%	1/4W
R856	1-249-430-11	CARBON	12K	5%	1/4W
R857	1-249-403-11	CARBON	68	5%	1/4W
R884	1-249-417-11	CARBON	1K	5%	1/4W(GA9ESG)
R886	1-247-891-00	CARBON	330K	5%	1/4W(GA9ESG)
R887	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R891	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R892	1-249-393-11	CARBON	10	5%	1/4W(GA9ESG)
R893	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R894	1-249-425-11	CARBON	4.7K	5%	1/4W(GA9ESG)
R895	1-249-425-11	CARBON	4.7K	5%	1/4W(GA9ESG)
R897	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8000	1-249-417-11	CARBON	1K	5%	1/4W(GA9ESG)
R8007	1-249-409-11	CARBON	220	5%	1/4W
R8008	1-249-429-11	CARBON	10K	5%	1/4W(GA9ESG)
R8011	1-249-409-11	CARBON	220	5%	1/4W
R8055	1-249-403-11	CARBON	68	5%	1/4W
R8056	1-249-403-11	CARBON	68	5%	1/4W
R8057	1-249-413-11	CARBON	470	5%	1/4W(GA9ESG)
R8058	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8059	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8060	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8061	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8062	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8063	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8064	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8065	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8066	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8067	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8068	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8069	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8070	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8071	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8072	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8073	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
R8074	1-247-807-31	CARBON	100	5%	1/4W(GA9ESG)
		< TEST PIN >			
* TP801	1-560-062-00	PIN, CONNECTOR 4P (GA9ESG)			
		< VIBRATOR >			
X801	1-567-819-11	VIBRATOR, CERAMIC (4MHz) (GA9ESG)			
X805	1-567-819-11	VIBRATOR, CERAMIC (4MHz) (GA9ESG)			
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*	A-4390-351-A	SAM BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C701	1-126-963-11	ELECT	4.7uF	20%	50V
C702	1-162-282-31	CERAMIC	100PF	10%	50V
C703	1-124-443-00	ELECT	100uF	20%	10V
C704	1-102-233-00	CERAMIC	33PF	10%	500V
C705	1-124-122-11	ELECT	100uF	20%	50V
C706	1-124-122-11	ELECT	100uF	20%	50V
C708	1-124-910-11	ELECT	47uF	20%	50V
C714	1-162-193-31	CERAMIC	3.3PF	10%	50V

Ref.No.	Part No.	Description			Remark
C720	1-136-165-00	FILM	0.1uF	5%	50V
C751	1-126-963-11	ELECT	4.7uF	20%	50V
C752	1-162-282-31	CERAMIC	100PF	10%	50V
C753	1-124-443-00	ELECT	100uF	20%	10V
C754	1-102-233-00	CERAMIC	33PF	10%	500V
C758	1-124-910-11	ELECT	47uF	20%	50V
C764	1-162-193-31	CERAMIC	3.3PF	10%	50V
C770	1-136-165-00	FILM	0.1uF	5%	50V
		< CONECTOR >			
CNE705	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
CNS706	1-764-814-11	CONNECTOR, BOARD TO BOARD 15P			
		< IC >			
IC701	8-759-326-52	IC uPC2581V			
		< TRANSISTOR >			
Q703	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q707	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q753	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q757	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
		< RESISTOR >			
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-438-11	CARBON	56K	5%	1/4W
R703	1-249-411-11	CARBON	330	5%	1/4W
R704	1-249-432-11	CARBON	18K	5%	1/4W
R711	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-407-11	CARBON	150	5%	1/4W
R714	1-249-438-11	CARBON	56K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W
R722	1-249-421-11	CARBON	2.2K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-438-11	CARBON	56K	5%	1/4W
R753	1-249-411-11	CARBON	330	5%	1/4W
R761	1-249-429-11	CARBON	10K	5%	1/4W
R763	1-249-407-11	CARBON	150	5%	1/4W
R764	1-249-438-11	CARBON	56K	5%	1/4W
R771	1-249-425-11	CARBON	4.7K	5%	1/4W
R772	1-249-421-11	CARBON	2.2K	5%	1/4W

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Ref.No.	Part No.	Description			Remark
*	A-4390-359-A	SP TM BOARD, COMPLETE			
		**********			
		SP TM(A) BOARD			
		**********			
		SP TM(B) BOARD			
		**********			
		< CAPACITOR >			
C021	1-136-157-00	FILM	0.022uF	5%	50V
C621	1-136-157-00	FILM	0.022uF	5%	50V
C671	1-136-157-00	FILM	0.022uF	5%	50V
C721	1-136-157-00	FILM	0.022uF	5%	50V
C771	1-136-157-00	FILM	0.022uF	5%	50V
		< CONNECTOR >			
* CND620	1-564-338-71	PIN, CONNECTOR 4P (GA9ESG/GA8ES)			
* CND621	1-564-342-11	PIN, CONNECTOR 8P			
CNE601	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			
CNE622	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			(GA9ESG/GA8ES)
CNE622	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			(VA8ES)
CNS623	1-695-093-11	SOCKET, CONNECTOR 9P			
CNV615	1-778-145-11	PIN, CONNECTOR (PC BOARD) 6P			
CNV616	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D010	8-719-987-63	DIODE	1N4148M		
D601	8-719-987-63	DIODE	1N4148M		
D610	8-719-987-63	DIODE	1N4148M		
D660	8-719-987-63	DIODE	1N4148M		(GA9ESG/GA8ES)
D710	8-719-987-63	DIODE	1N4148M		
		< COIL >			
L001	1-411-906-11	COIL, AIR-CORE			
L601	1-411-906-11	COIL, AIR-CORE			
L651	1-411-906-11	COIL, AIR-CORE			
L701	1-411-906-11	COIL, AIR-CORE			
L751	1-411-906-11	COIL, AIR-CORE			
		< TRANSISTOR >			
Q008	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q603	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q608	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q651	8-729-119-79	TRANSISTOR	2SC2785-FEK		(GA9ESG/GA8ES)
Q658	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q708	8-729-119-79	TRANSISTOR	2SC2785-FEK		

SP TM **SP TM (A)** **SP TM (B)** **SURROUND**

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R024	1-249-393-11	CARBON	10	5%	1/4W
R025	1-249-389-11	CARBON	4.7	5%	1/4W
R026	1-249-432-11	CARBON	18K	5%	1/4W
R030	1-249-425-11	CARBON	4.7K	5%	1/4W
R031	1-249-429-11	CARBON	10K	5%	1/4W
R032	1-249-416-11	CARBON	820	5%	1/4W
R050	1-249-425-11	CARBON	4.7K	5%	1/4W (GA9ESG/GA8ES)
R051	1-249-429-11	CARBON	10K	5%	1/4W (GA9ESG/GA8ES)
R052	1-249-416-11	CARBON	820	5%	1/4W (GA9ESG/GA8ES)
R604	1-249-429-11	CARBON	10K	5%	1/4W
R608	1-249-429-11	CARBON	10K	5%	1/4W
R616	1-249-418-11	CARBON	1.2K	5%	1/4W
R617	1-249-418-11	CARBON	1.2K	5%	1/4W
R624	1-249-393-11	CARBON	10	5%	1/4W
R625	1-249-389-11	CARBON	4.7	5%	1/4W
R630	1-249-425-11	CARBON	4.7K	5%	1/4W
R631	1-249-429-11	CARBON	10K	5%	1/4W
R632	1-249-416-11	CARBON	820	5%	1/4W
R674	1-249-393-11	CARBON	10	5%	1/4W
R675	1-249-389-11	CARBON	4.7	5%	1/4W
R680	1-249-425-11	CARBON	4.7K	5%	1/4W
R681	1-249-429-11	CARBON	10K	5%	1/4W
R682	1-249-416-11	CARBON	820	5%	1/4W
R724	1-249-393-11	CARBON	10	5%	1/4W
R725	1-249-389-11	CARBON	4.7	5%	1/4W
R726	1-249-432-11	CARBON	18K	5%	1/4W
R730	1-249-425-11	CARBON	4.7K	5%	1/4W
R731	1-249-429-11	CARBON	10K	5%	1/4W
R732	1-249-416-11	CARBON	820	5%	1/4W
R774	1-249-393-11	CARBON	10	5%	1/4W
R775	1-249-389-11	CARBON	4.7	5%	1/4W
R776	1-249-432-11	CARBON	18K	5%	1/4W
		< RELAY >			
RY001	1-515-920-11	RELAY (24V)			
RY601	1-515-765-11	RELAY			
RY602	1-515-614-11	RELAY			
RY651	1-515-765-11	RELAY			
RY701	1-515-920-11	RELAY (24V)			
		< SWITCH >			
S721	1-692-196-11	SWITCH, SLIDE (IMPEDANCE SELECTOR)			(GA9ESG/GA8ES)

Ref. No.	Part No.	Description			Remark
		< TERMINAL >			
TM001	1-694-115-11	TERMINAL BOARD (6P) (CENTER SPEAKERS, REAR SPEAKERS)			
TM601	1-694-113-11	TERMINAL BOARD (FRONT SPEAKERS)			
**********					
*	A-4390-373-A	SURROUND BOARD, COMPLETE (GA9ESG)			
*	A-4392-040-A	SURROUND BOARD, COMPLETE (GA8ES:US, CND)			
*	A-4390-926-A	SURROUND BOARD, COMPLETE (E, EA, PX)			
*	A-4390-491-A	SURROUND BOARD, COMPLETE (AUS)			
*	A-4392-041-A	SURROUND BOARD, COMPLETE (VA8ES)			
		**********			
		< CAPACITOR >			
C126	1-162-294-31	CERAMIC	0.001uF	10%	50V
C151	1-162-306-11	CERAMIC	0.01uF	30%	16V
C152	1-164-159-11	CERAMIC	0.1uF		50V
C153	1-164-159-11	CERAMIC	0.1uF		50V
C154	1-164-159-11	CERAMIC	0.1uF		50V
C155	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG/GA8ES)
C156	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG/GA8ES)
C157	1-162-294-31	CERAMIC	0.001uF	10%	50V (GA9ESG/GA8ES)
C158	1-126-023-11	ELECT	100uF	20%	25V
C301	1-126-022-11	ELECT	47uF	20%	25V
C302	1-164-159-11	CERAMIC	0.1uF		50V
C303	1-164-159-11	CERAMIC	0.1uF		50V
C304	1-126-022-11	ELECT	47uF	20%	25V
C305	1-136-153-00	FILM	0.01uF	5%	50V
C306	1-162-306-11	CERAMIC	0.01uF	30%	16V
C307	1-126-048-81	ELECT	10uF	20%	50V
C309	1-126-049-11	ELECT	22uF	20%	25V
C310	1-126-049-11	ELECT	22uF	20%	25V
C311	1-164-097-11	CERAMIC	0.022uF		50V
C312	1-164-159-11	CERAMIC	0.1uF		50V
C313	1-102-971-00	CERAMIC	82PF	5%	50V
C315	1-130-479-00	MYLAR	0.0047uF	5%	50V
C318	1-102-962-00	CERAMIC	30PF	5%	50V
C319	1-102-962-00	CERAMIC	30PF	5%	50V
C320	1-130-472-00	MYLAR	0.0012uF	5%	50V
C321	1-162-215-31	CERAMIC	47PF	5%	50V
C322	1-126-049-11	ELECT	22uF	20%	25V
C323	1-164-159-11	CERAMIC	0.1uF		50V
C324	1-126-048-81	ELECT	10uF	20%	50V
C325	1-164-159-11	CERAMIC	0.1uF		50V
C326	1-126-022-11	ELECT	47uF	20%	25V
C327	1-126-049-11	ELECT	22uF	20%	25V

Ref. No.	Part No.	Description			Remark
C328	1-164-159-11	CERAMIC	0.1uF		50V
C337	1-136-165-00	FILM	0.1uF	5%	50V
C340	1-136-159-00	FILM	0.033uF	5%	50V
C341	1-136-171-00	FILM	0.33uF	5%	50V
C343	1-164-159-11	CERAMIC	0.1uF		50V
C344	1-164-159-11	CERAMIC	0.1uF		50V
C345	1-164-159-11	CERAMIC	0.1uF		50V
C346	1-126-023-11	ELECT	100uF	20%	25V
C351	1-126-049-11	ELECT	22uF	20%	25V
C352	1-164-159-11	CERAMIC	0.1uF		50V
C353	1-162-306-11	CERAMIC	0.01uF	30%	16V
C354	1-136-153-00	FILM	0.01uF	5%	50V
C355	1-164-159-11	CERAMIC	0.1uF		50V
C356	1-126-022-11	ELECT	47uF	20%	25V
C357	1-126-048-81	ELECT	10uF	20%	50V
C359	1-126-049-11	ELECT	22uF	20%	25V
C363	1-102-971-00	CERAMIC	82PF	5%	50V
C365	1-130-479-00	MYLAR	0.0047uF	5%	50V
C368	1-102-962-00	CERAMIC	30PF	5%	50V
C369	1-102-962-00	CERAMIC	30PF	5%	50V
C370	1-130-472-00	MYLAR	0.0012uF	5%	50V
C371	1-162-215-31	CERAMIC	47PF	5%	50V
C372	1-126-049-11	ELECT	22uF	20%	25V
C373	1-164-159-11	CERAMIC	0.1uF		50V
C374	1-126-048-81	ELECT	10uF	20%	50V
C375	1-164-159-11	CERAMIC	0.1uF		50V
C376	1-126-022-11	ELECT	47uF	20%	25V
C377	1-126-049-11	ELECT	22uF	20%	25V
C378	1-164-159-11	CERAMIC	0.1uF		50V
C390	1-136-159-00	FILM	0.033uF	5%	50V
C391	1-136-171-00	FILM	0.33uF	5%	50V
C393	1-164-159-11	CERAMIC	0.1uF		50V
C394	1-164-159-11	CERAMIC	0.1uF		50V
C395	1-164-159-11	CERAMIC	0.1uF		50V
C396	1-126-023-11	ELECT	100uF	20%	25V
C401	1-162-306-11	CERAMIC	0.01uF	30%	16V
C402	1-126-022-11	ELECT	47uF	20%	25V
C403	1-164-159-11	CERAMIC	0.1uF		50V
C404	1-164-159-11	CERAMIC	0.1uF		50V
C405	1-164-159-11	CERAMIC	0.1uF		50V
C406	1-124-995-11	ELECT	220uF	20%	10V
C407	1-164-159-11	CERAMIC	0.1uF		50V
C408	1-162-282-31	CERAMIC	100PF	10%	50V
C409	1-164-159-11	CERAMIC	0.1uF		50V
C410	1-124-995-11	ELECT	220uF	20%	10V
C411	1-164-159-11	CERAMIC	0.1uF		50V
C412	1-164-159-11	CERAMIC	0.1uF		50V
C413	1-164-159-11	CERAMIC	0.1uF		50V
C414	1-126-023-11	ELECT	100uF	20%	25V
C416	1-164-159-11	CERAMIC	0.1uF		50V
C417	1-126-023-11	ELECT	100uF	20%	25V
C418	1-164-159-11	CERAMIC	0.1uF		50V
C419	1-162-207-31	CERAMIC	22PF	5%	50V
C420	1-162-207-31	CERAMIC	22PF	5%	50V
C427	1-164-159-11	CERAMIC	0.1uF		50V
C430	1-102-971-00	CERAMIC	82PF	5%	50V
C431	1-102-962-00	CERAMIC	30PF	5%	50V
C432	1-102-962-00	CERAMIC	30PF	5%	50V
C433	1-164-159-11	CERAMIC	0.1uF		50V
C434	1-164-159-11	CERAMIC	0.1uF		50V
C435	1-130-479-00	MYLAR	0.0047uF	5%	50V
C436	1-130-472-00	MYLAR	0.0012uF	5%	50V
C438	1-126-048-81	ELECT	10uF	20%	50V
C450	1-124-995-11	ELECT	220uF	20%	10V
C451	1-164-159-11	CERAMIC	0.1uF		50V
C452	1-162-282-31	CERAMIC	100PF	10%	50V
C453	1-164-159-11	CERAMIC	0.1uF		50V
C454	1-124-995-11	ELECT	220uF	20%	10V
C455	1-164-159-11	CERAMIC	0.1uF		50V
C456	1-126-023-11	ELECT	100uF	20%	25V
C457	1-164-159-11	CERAMIC	0.1uF		50V
C459	1-164-159-11	CERAMIC	0.1uF		50V
C460	1-126-023-11	ELECT	100uF	20%	25V
C462	1-164-159-11	CERAMIC	0.1uF		50V
C480	1-102-971-00	CERAMIC	82PF	5%	50V
C481	1-102-962-00	CERAMIC	30PF	5%	50V
C482	1-102-962-00	CERAMIC	30PF	5%	50V
C483	1-164-159-11	CERAMIC	0.1uF		50V
C484	1-164-159-11	CERAMIC	0.1uF		50V
C485	1-130-479-00	MYLAR	0.0047uF	5%	50V
C486	1-130-472-00	MYLAR	0.0012uF	5%	50V
C488	1-126-048-81	ELECT	10uF	20%	50V

< FILTER >

CF151 1-567-928-11 VIBLATOR, CERAMIC

< CONNECTOR >

CND401 1-506-615-11 PIN, CONNECTOR 9P
* CND403 1-564-500-11 PIN, CONNECTOR 7P (GA9ESG)
* CND403 1-564-498-11 PIN, CONNECTOR 5P (GA8ES/VA8ES)
* CND404 1-564-340-61 PIN, CONNECTOR 6P
CND405 1-564-501-11 PIN, CONNECTOR 8P

* CND406 1-564-342-11 PIN, CONNECTOR 8P
* CND407 1-564-338-71 PIN, CONNECTOR 4P (GA9ESG/GA8ES)
* CND412 1-564-342-61 PIN, CONNECTOR 8P (GA9ESG)
CNE402 1-770-963-11 PIN, CONNECTOR (PCB) (V TYPE) 3P (GA9ESG/GA8ES)

SURROUND

Ref. No.	Part No.	Description	Remark
CNE402	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P (VA8ES)	
* CNS408	1-580-974-11	CONNECTOR, BOARD TO BOARD	
* CNS409	1-580-974-11	CONNECTOR, BOARD TO BOARD	
		< DIODE >	
D105	8-719-987-63	DIODE 1N4148M	
D106	8-719-987-63	DIODE 1N4148M	
D108	8-719-987-63	DIODE 1N4148M	
D109	8-719-987-63	DIODE 1N4148M	
D110	8-719-987-63	DIODE 1N4148M	
D160	8-719-987-63	DIODE 1N4148M	
D167	8-719-987-63	DIODE 1N4148M	
		< FRONTEND >	
FE301	1-233-666-11	ENCAPSULATED COMPONENT (US, CND)	
FE301	1-233-670-11	ENCAPSULATED COMPONENT (E, AUS, PX)	
		< IC >	
IC150	8-759-390-29	IC HD6433258-E3	
IC301	8-759-191-20	IC AK5369VP	
IC302	8-759-634-51	IC M5218AP	
IC303	8-759-708-05	IC NJM78L05A	
IC304	8-759-700-65	IC NJM79L05A	
IC305	8-759-634-51	IC M5218AP	
IC306	8-759-634-51	IC M5218AP	
IC355	8-759-634-51	IC M5218AP	
IC401	8-759-075-34	IC LC83015	
IC402	8-759-158-10	IC CAT514256B-70RS	
IC403	8-759-708-05	IC NJM78L05A	
IC404	8-759-362-47	IC CXD8567AM	
IC405	8-759-362-47	IC CXD8567AM	
IC406	8-759-708-05	IC NJM78L05A	
IC407	8-759-634-51	IC M5218AP	
IC408	8-759-634-51	IC M5218AP	
		< COIL >	
L103	1-410-509-11	INDUCTOR 10uH	
L104	1-410-509-11	INDUCTOR 10uH	
L151	1-410-509-11	INDUCTOR 10uH	
L301	1-410-509-11	INDUCTOR 10uH	
L302	1-410-509-11	INDUCTOR 10uH	
L303	1-410-509-11	INDUCTOR 10uH	
L406	1-410-509-11	INDUCTOR 10uH	
L407	1-410-509-11	INDUCTOR 10uH	
L408	1-410-509-11	INDUCTOR 10uH	
L412	1-410-509-11	INDUCTOR 10uH	
L413	1-410-509-11	INDUCTOR 10uH	
L414	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q152	8-729-900-63	TRANSISTOR DTA124ES	
Q153	8-729-900-63	TRANSISTOR DTA124ES	
Q301	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q302	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q303	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q306	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q307	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q351	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q352	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q353	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q356	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q357	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q406	8-729-900-63	TRANSISTOR DTA124ES	
Q407	8-729-900-63	TRANSISTOR DTA124ES	
Q408	8-729-900-63	TRANSISTOR DTA124ES	
		< RESISTOR >	
R151	1-249-429-11	CARBON 10K 5% 1/4W	
R152	1-249-413-11	CARBON 470 5% 1/4W	
R153	1-249-417-11	CARBON 1K 5% 1/4W	
R154	1-249-417-11	CARBON 1K 5% 1/4W	
R155	1-249-417-11	CARBON 1K 5% 1/4W	
R156	1-249-417-11	CARBON 1K 5% 1/4W	
R157	1-249-417-11	CARBON 1K 5% 1/4W	
R158	1-249-417-11	CARBON 1K 5% 1/4W	
R159	1-249-417-11	CARBON 1K 5% 1/4W	
R160	1-249-417-11	CARBON 1K 5% 1/4W	
R161	1-249-429-11	CARBON 10K 5% 1/4W	
R162	1-249-417-11	CARBON 1K 5% 1/4W	
R168	1-249-429-11	CARBON 10K 5% 1/4W	
R169	1-249-441-11	CARBON 100K 5% 1/4W	
R170	1-249-417-11	CARBON 1K 5% 1/4W	
R171	1-249-417-11	CARBON 1K 5% 1/4W	
R172	1-249-417-11	CARBON 1K 5% 1/4W	
R173	1-249-429-11	CARBON 10K 5% 1/4W	
R174	1-249-429-11	CARBON 10K 5% 1/4W	
R175	1-249-429-11	CARBON 10K 5% 1/4W	
R176	1-249-441-11	CARBON 100K 5% 1/4W	
R177	1-249-437-11	CARBON 47K 5% 1/4W	
R180	1-249-417-11	CARBON 1K 5% 1/4W	
R181	1-249-417-11	CARBON 1K 5% 1/4W	
R182	1-249-417-11	CARBON 1K 5% 1/4W	
R183	1-249-417-11	CARBON 1K 5% 1/4W	
R184	1-249-417-11	CARBON 1K 5% 1/4W	
R185	1-249-417-11	CARBON 1K 5% 1/4W	
R186	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R187	1-249-417-11	CARBON	1K	5%	1/4W
R231	1-249-417-11	CARBON	1K	5%	1/4W
R300	1-247-903-00	CARBON	1M	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W
R302	1-249-401-11	CARBON	47	5%	1/4W
R303	1-247-807-31	CARBON	100	5%	1/4W
R306	1-249-441-11	CARBON	100K	5%	1/4W
R307	1-249-417-11	CARBON	1K	5%	1/4W (GA9ESG/GA8ES)
R308	1-249-435-11	CARBON	33K	5%	1/4W
R309	1-247-895-00	CARBON	470K	5%	1/4W
R310	1-249-417-11	CARBON	1K	5%	1/4W (GA9ESG/GA8ES)
R311	1-249-436-11	CARBON	39K	5%	1/4W
R312	1-249-436-11	CARBON	39K	5%	1/4W
R313	1-249-432-11	CARBON	18K	5%	1/4W
R314	1-249-432-11	CARBON	18K	5%	1/4W
R315	1-249-439-11	CARBON	68K	5%	1/4W
R316	1-249-439-11	CARBON	68K	5%	1/4W
R317	1-249-419-11	CARBON	1.5K	5%	1/4W
R318	1-249-419-11	CARBON	1.5K	5%	1/4W
R319	1-249-393-11	CARBON	10	5%	1/4W
R320	1-247-903-00	CARBON	1M	5%	1/4W
R321	1-249-417-11	CARBON	1K	5%	1/4W
R322	1-249-441-11	CARBON	100K	5%	1/4W
R323	1-247-844-11	CARBON	3.6K	5%	1/4W
R324	1-249-425-11	CARBON	4.7K	5%	1/4W
R325	1-247-843-11	CARBON	3.3K	5%	1/4W
R326	1-249-441-11	CARBON	100K	5%	1/4W
R327	1-249-429-11	CARBON	10K	5%	1/4W
R328	1-249-425-11	CARBON	4.7K	5%	1/4W
R329	1-249-420-11	CARBON	1.8K	5%	1/4W
R330	1-249-417-11	CARBON	1K	5%	1/4W
R331	1-249-441-11	CARBON	100K	5%	1/4W
R332	1-247-836-11	CARBON	1.6K	5%	1/4W
R333	1-249-425-11	CARBON	4.7K	5%	1/4W
R334	1-247-887-00	CARBON	220K	5%	1/4W
R342	1-249-412-11	CARBON	390	5%	1/4W
R343	1-247-843-11	CARBON	3.3K	5%	1/4W
R344	1-249-427-11	CARBON	6.8K	5%	1/4W
R345	1-247-883-00	CARBON	150K	5%	1/4W
R346	1-249-441-11	CARBON	100K	5%	1/4W
R349	1-249-437-11	CARBON	47K	5%	1/4W
R351	1-249-393-11	CARBON	10	5%	1/4W
R352	1-249-401-11	CARBON	47	5%	1/4W
R353	1-247-807-31	CARBON	100	5%	1/4W
R356	1-249-441-11	CARBON	100K	5%	1/4W
R358	1-249-435-11	CARBON	33K	5%	1/4W
R359	1-249-435-11	CARBON	33K	5%	1/4W
R360	1-249-413-11	CARBON	470	5%	1/4W
R361	1-249-436-11	CARBON	39K	5%	1/4W
R362	1-249-436-11	CARBON	39K	5%	1/4W
R363	1-249-432-11	CARBON	18K	5%	1/4W
R364	1-249-432-11	CARBON	18K	5%	1/4W
R365	1-249-439-11	CARBON	68K	5%	1/4W
R366	1-249-439-11	CARBON	68K	5%	1/4W
R367	1-249-419-11	CARBON	1.5K	5%	1/4W
R368	1-249-419-11	CARBON	1.5K	5%	1/4W
R370	1-247-903-00	CARBON	1M	5%	1/4W
R372	1-249-441-11	CARBON	100K	5%	1/4W
R373	1-247-844-11	CARBON	3.6K	5%	1/4W
R374	1-249-425-11	CARBON	4.7K	5%	1/4W
R375	1-247-843-11	CARBON	3.3K	5%	1/4W
R376	1-249-441-11	CARBON	100K	5%	1/4W
R377	1-249-429-11	CARBON	10K	5%	1/4W
R378	1-249-425-11	CARBON	4.7K	5%	1/4W
R379	1-249-420-11	CARBON	1.8K	5%	1/4W
R380	1-249-417-11	CARBON	1K	5%	1/4W
R381	1-249-441-11	CARBON	100K	5%	1/4W
R382	1-247-836-11	CARBON	1.6K	5%	1/4W
R383	1-249-425-11	CARBON	4.7K	5%	1/4W
R384	1-247-887-00	CARBON	220K	5%	1/4W
R392	1-249-412-11	CARBON	390	5%	1/4W
R393	1-247-843-11	CARBON	3.3K	5%	1/4W
R394	1-249-427-11	CARBON	6.8K	5%	1/4W
R395	1-247-883-00	CARBON	150K	5%	1/4W
R396	1-249-441-11	CARBON	100K	5%	1/4W
R401	1-249-413-11	CARBON	470	5%	1/4W
R402	1-249-413-11	CARBON	470	5%	1/4W
R403	1-249-389-11	CARBON	4.7	5%	1/4W
R404	1-249-393-11	CARBON	10	5%	1/4W
R405	1-249-409-11	CARBON	220	5%	1/4W
R406	1-249-417-11	CARBON	1K	5%	1/4W
R407	1-249-413-11	CARBON	470	5%	1/4W
R408	1-249-397-11	CARBON	22	5%	1/4W
R409	1-247-903-00	CARBON	1M	5%	1/4W
R410	1-249-397-11	CARBON	22	5%	1/4W
R411	1-249-413-11	CARBON	470	5%	1/4W
R412	1-249-393-11	CARBON	10	5%	1/4W
R413	1-249-413-11	CARBON	470	5%	1/4W
R415	1-249-393-11	CARBON	10	5%	1/4W
R416	1-249-393-11	CARBON	10	5%	1/4W
R418	1-249-417-11	CARBON	1K	5%	1/4W
R420	1-249-436-11	CARBON	39K	5%	1/4W
R421	1-249-436-11	CARBON	39K	5%	1/4W
R422	1-249-432-11	CARBON	18K	5%	1/4W
R423	1-249-432-11	CARBON	18K	5%	1/4W

SURROUND SWP

Ref. No.	Part No.	Description			Remark
R424	1-249-439-11	CARBON	68K	5%	1/4W
R425	1-249-439-11	CARBON	68K	5%	1/4W
R426	1-249-419-11	CARBON	1.5K	5%	1/4W
R427	1-249-419-11	CARBON	1.5K	5%	1/4W
R437	1-247-903-00	CARBON	1M	5%	1/4W
R438	1-247-903-00	CARBON	1M	5%	1/4W
R439	1-247-903-00	CARBON	1M	5%	1/4W
R441	1-249-433-11	CARBON	22K	5%	1/4W
R442	1-249-433-11	CARBON	22K	5%	1/4W
R450	1-249-397-11	CARBON	22	5%	1/4W
R451	1-249-397-11	CARBON	22	5%	1/4W
R470	1-249-436-11	CARBON	39K	5%	1/4W
R471	1-249-436-11	CARBON	39K	5%	1/4W
R472	1-249-432-11	CARBON	18K	5%	1/4W
R473	1-249-432-11	CARBON	18K	5%	1/4W
R474	1-249-439-11	CARBON	68K	5%	1/4W
R475	1-249-439-11	CARBON	68K	5%	1/4W
R476	1-249-419-11	CARBON	1.5K	5%	1/4W
R477	1-249-419-11	CARBON	1.5K	5%	1/4W
		< TERMINAL >			
TM301	1-537-769-11	TERMINAL BOARD (ANTENNA) (US, CND, E, EA, PX)			
TM301	1-537-488-11	TERMINAL BOARD (ANTENNA) (AUS)			
		< TEST PIN >			
* TP400	1-560-200-00	BASE POST, MCD CONNECTOR 2P			(GA8ES/VA8ES)
		< VIBRATOR >			
X402	1-567-970-11	VIBRATOR, CRYSTAL (24.576MHz)			
**********					
*	A-4390-377-A	SWP BOARD, COMPLETE (VA8ES)			
*	A-4390-356-A	SWP BOARD, COMPLETE (GA9ESG/GA8ES)			
		**********			
		< CAPACITOR >			
C500	1-162-294-31	CERAMIC	0.001uF	10%	50V
C501	1-136-153-00	FILM	0.01uF	5%	50V
C502	1-130-479-00	MYLAR	0.0047uF	5%	50V
C503	1-126-048-81	ELECT	10uF	20%	50V
C504	1-164-159-11	CERAMIC	0.1uF		50V
C505	1-124-925-11	ELECT	2.2uF	20%	50V
C506	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG/GA8ES)
C507	1-126-048-81	ELECT	10uF	20%	50V
C508	1-126-048-81	ELECT	10uF	20%	50V
C509	1-136-159-00	FILM	0.033uF	5%	50V (GA9ESG/GA8ES)
C510	1-136-159-00	FILM	0.033uF	5%	50V (GA9ESG/GA8ES)
C511	1-162-294-31	CERAMIC	0.001uF	10%	50V (GA9ESG/GA8ES)
C512	1-126-048-81	ELECT	10uF	20%	50V
C513	1-126-048-81	ELECT	10uF	20%	50V
C515	1-126-048-81	ELECT	10uF	20%	50V
C516	1-126-048-81	ELECT	10uF	20%	50V
C548	1-162-282-31	CERAMIC	100PF	10%	50V
C549	1-126-048-81	ELECT	10uF	20%	50V
C550	1-162-294-31	CERAMIC	0.001uF	10%	50V
C551	1-136-153-00	FILM	0.01uF	5%	50V
C552	1-136-153-00	FILM	0.01uF	5%	50V
C553	1-126-048-81	ELECT	10uF	20%	50V
C557	1-126-048-81	ELECT	10uF	20%	50V
C558	1-126-048-81	ELECT	10uF	20%	50V
C559	1-136-159-00	FILM	0.033uF	5%	50V (GA9ESG/GA8ES)
C560	1-136-159-00	FILM	0.033uF	5%	50V (GA9ESG/GA8ES)
C562	1-126-048-81	ELECT	10uF	20%	50V
C563	1-126-048-81	ELECT	10uF	20%	50V
C599	1-126-048-81	ELECT	10uF	20%	50V
		< CONNECTOR >			
CNE503	1-770-970-11	PIN, CONNECTOR (PCB) (V TYPE) 10P			
CNE505	1-770-969-11	PIN, CONNECTOR (PCB) (V TYPE) 9P			
CNE506	1-770-969-11	PIN, CONNECTOR (PCB) (V TYPE) 9P			
CNS201	1-695-096-11	SOCKET, CONNECTOR 15P			
CNS504	1-750-179-11	SOCKET, CONNECTOR 5P			
CNS508	1-750-983-11	CONNECTOR, BOARD TO BOARD 15P			
CNS509	1-750-983-11	CONNECTOR, BOARD TO BOARD 15P			
		< DIODE >			
D111	8-719-987-63	DIODE 1N4148M			
D112	8-719-987-63	DIODE 1N4148M			
D501	8-719-987-63	DIODE 1N4148M			
D503	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC501	8-759-805-13	IC LC7821			
IC502	8-759-805-15	IC LC7823			
IC503	8-759-634-51	IC M5218AP			
IC506	8-759-820-11	IC LC7535			
IC507	8-759-634-51	IC M5218AP			
IC508	8-759-708-05	IC NJM78L05A			
IC509	8-759-805-14	IC LC7822 (GA9ESG/GA8ES)			
IC510	8-759-634-51	IC M5218AP (GA9ESG/GA8ES)			
IC511	8-759-634-51	IC M5218AP			
IC512	8-759-634-51	IC M5218AP			

Ref. No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q501	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q502	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q503	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q504	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q505	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q506	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q508	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q509	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q510	8-729-141-30	TRANSISTOR	2SC3623A-LK			(GA9ESG/GA8ES)
Q552	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q553	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q554	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q558	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q559	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q560	8-729-141-30	TRANSISTOR	2SC3623A-LK			
		< RESISTOR >				
R500	1-249-425-11	CARBON	4.7K	5%	1/4W	
R501	1-249-429-11	CARBON	10K	5%	1/4W	
R502	1-249-429-11	CARBON	10K	5%	1/4W	
R503	1-249-431-11	CARBON	15K	5%	1/4W	
R504	1-249-426-11	CARBON	5.6K	5%	1/4W	
R505	1-249-413-11	CARBON	470	5%	1/4W	
R506	1-249-426-11	CARBON	5.6K	5%	1/4W	
R507	1-249-413-11	CARBON	470	5%	1/4W	
R508	1-249-426-11	CARBON	5.6K	5%	1/4W	
R509	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-429-11	CARBON	10K	5%	1/4W	
R511	1-249-433-11	CARBON	22K	5%	1/4W	
R512	1-249-441-11	CARBON	100K	5%	1/4W	
R513	1-249-413-11	CARBON	470	5%	1/4W	
R514	1-249-413-11	CARBON	470	5%	1/4W	
R515	1-249-413-11	CARBON	470	5%	1/4W	
R516	1-249-426-11	CARBON	5.6K	5%	1/4W	
R517	1-249-426-11	CARBON	5.6K	5%	1/4W	
R518	1-249-426-11	CARBON	5.6K	5%	1/4W	
R519	1-249-436-11	CARBON	39K	5%	1/4W	(GA9ESG/GA8ES)
R520	1-247-876-11	CARBON	75K	5%	1/4W	(GA9ESG/GA8ES)
R521	1-249-425-11	CARBON	4.7K	5%	1/4W	(GA9ESG/GA8ES)
R522	1-249-441-11	CARBON	100K	5%	1/4W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-429-11	CARBON	10K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-249-437-11	CARBON	47K	5%	1/4W	
R527	1-249-441-11	CARBON	100K	5%	1/4W	
R528	1-249-441-11	CARBON	100K	5%	1/4W	
R529	1-249-437-11	CARBON	47K	5%	1/4W	
R530	1-249-441-11	CARBON	100K	5%	1/4W	
R531	1-249-417-11	CARBON	1K	5%	1/4W	
R532	1-249-429-11	CARBON	10K	5%	1/4W	
R533	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-249-413-11	CARBON	470	5%	1/4W	
R535	1-249-426-11	CARBON	5.6K	5%	1/4W	
R537	1-249-413-11	CARBON	470	5%	1/4W	
R538	1-249-425-11	CARBON	4.7K	5%	1/4W	
R541	1-249-429-11	CARBON	10K	5%	1/4W	
R542	1-249-429-11	CARBON	10K	5%	1/4W	
R543	1-249-429-11	CARBON	10K	5%	1/4W	
R550	1-249-425-11	CARBON	4.7K	5%	1/4W	
R551	1-249-429-11	CARBON	10K	5%	1/4W	
R552	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-247-883-00	CARBON	150K	5%	1/4W	
R555	1-249-413-11	CARBON	470	5%	1/4W	
R556	1-249-426-11	CARBON	5.6K	5%	1/4W	
R557	1-249-413-11	CARBON	470	5%	1/4W	
R558	1-249-426-11	CARBON	5.6K	5%	1/4W	
R559	1-249-441-11	CARBON	100K	5%	1/4W	
R560	1-249-429-11	CARBON	10K	5%	1/4W	
R561	1-249-433-11	CARBON	22K	5%	1/4W	
R563	1-249-413-11	CARBON	470	5%	1/4W	
R564	1-249-413-11	CARBON	470	5%	1/4W	
R565	1-249-413-11	CARBON	470	5%	1/4W	
R566	1-249-426-11	CARBON	5.6K	5%	1/4W	
R567	1-249-426-11	CARBON	5.6K	5%	1/4W	
R568	1-249-426-11	CARBON	5.6K	5%	1/4W	
R569	1-249-436-11	CARBON	39K	5%	1/4W	(GA9ESG/GA8ES)
R570	1-247-876-11	CARBON	75K	5%	1/4W	(GA9ESG/GA8ES)
R572	1-249-441-11	CARBON	100K	5%	1/4W	
R573	1-249-417-11	CARBON	1K	5%	1/4W	
R574	1-249-429-11	CARBON	10K	5%	1/4W	
R575	1-249-417-11	CARBON	1K	5%	1/4W	
R580	1-249-441-11	CARBON	100K	5%	1/4W	
R581	1-249-417-11	CARBON	1K	5%	1/4W	
R582	1-249-429-11	CARBON	10K	5%	1/4W	
R583	1-249-417-11	CARBON	1K	5%	1/4W	
R584	1-249-413-11	CARBON	470	5%	1/4W	
R585	1-249-426-11	CARBON	5.6K	5%	1/4W	
R593	1-249-429-11	CARBON	10K	5%	1/4W	
		< RELAY >				
RY501	1-515-614-11	RELAY				

SWP **VIDEO**

Ref. No.	Part No.	Description			Remark
RY503	1-515-614-11	RELAY			
**********					
*	A-4390-362-A	VIDEO BOARD, COMPLETE (GA9ESG)			
*	A-4390-397-A	VIDEO BOARD, COMPLETE (GA8ES/VA8ES)			
		**********			
		< CAPACITOR >			
C800	1-124-907-11	ELECT	10uF	20%	50V (GA9ESG)
C803	1-102-518-11	CERAMIC	33PF	5%	50V (GA9ESG)
C806	1-102-852-91	CERAMIC	47PF	5%	50V (GA9ESG)
C808	1-124-907-11	ELECT	10uF	20%	50V (GA9ESG)
C811	1-162-290-31	CERAMIC	470PF	10%	50V (GA9ESG)
C812	1-124-443-00	ELECT	100uF	20%	10V (GA9ESG)
C813	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C824	1-162-294-31	CERAMIC	0.001uF	10%	50V (GA9ESG)
C830	1-162-294-31	CERAMIC	0.001uF	10%	50V (GA9ESG)
C831	1-102-106-00	CERAMIC	100PF	10%	50V (GA9ESG)
C835	1-164-095-11	CERAMIC	0.01uF	10%	16V (GA9ESG)
C836	1-102-518-11	CERAMIC	33PF	5%	50V (GA9ESG)
C837	1-102-074-00	CERAMIC	0.001uF	10%	50V (GA9ESG)
C838	1-164-159-11	CERAMIC	0.1uF		50V
C841	1-102-958-00	CERAMIC	20PF	5%	50V (GA9ESG)
C842	1-164-095-11	CERAMIC	0.01uF	10%	16V (GA9ESG)
C843	1-126-963-11	ELECT	4.7uF	20%	50V (GA9ESG)
C844	1-102-508-91	CERAMIC	10PF	0.5PF	50V (GA9ESG)
C847	1-162-282-31	CERAMIC	100PF	10%	50V (GA9ESG)
C848	1-124-903-11	ELECT	1uF	20%	50V (GA9ESG)
C849	1-136-162-00	FILM	0.056uF	5%	50V (GA9ESG)
C850	1-136-157-00	FILM	0.022uF	5%	50V (GA9ESG)
C851	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C852	1-104-664-11	ELECT	47uF	20%	16V (GA9ESG)
C853	1-124-903-11	ELECT	1uF	20%	50V
C854	1-102-106-00	CERAMIC	100PF	10%	50V (GA9ESG)
C855	1-136-169-00	FILM	0.22uF	5%	50V (GA9ESG)
C856	1-124-903-11	ELECT	1uF	20%	50V
C857	1-124-903-11	ELECT	1uF	20%	50V (GA9ESG)
C858	1-124-903-11	ELECT	1uF	20%	50V
C859	1-162-306-11	CERAMIC	0.01uF	30%	16V (GA9ESG)
C860	1-162-293-31	CERAMIC	820PF	10%	50V (GA9ESG)
C862	1-124-903-11	ELECT	1uF	20%	50V
C863	1-162-282-31	CERAMIC	100PF	10%	50V (GA9ESG)
C864	1-124-907-11	ELECT	10uF	20%	50V
C865	1-124-907-11	ELECT	10uF	20%	50V
C866	1-124-907-11	ELECT	10uF	20%	50V
C867	1-124-903-11	ELECT	1uF	20%	50V
C868	1-104-664-11	ELECT	47uF	20%	16V (GA9ESG)
C871	1-124-903-11	ELECT	1uF	20%	50V (GA9ESG)
C872	1-136-162-00	FILM	0.056uF	5%	50V (GA9ESG)
C873	1-164-159-11	CERAMIC	0.1uF		50V (GA9ESG)
C879	1-124-907-11	ELECT	10uF	20%	50V (GA9ESG)
C883	1-136-157-00	FILM	0.022uF	5%	50V (GA9ESG)
C884	1-162-306-11	CERAMIC	0.01uF	30%	16V (GA9ESG)
C885	1-124-903-11	ELECT	1uF	20%	50V (GA9ESG)
C886	1-162-293-31	CERAMIC	820PF	10%	50V (GA9ESG)
C892	1-162-282-31	CERAMIC	100PF	10%	50V (GA9ESG)
		< CONNECTOR >			
CNS804	1-695-094-11	SOCKET, CONNECTR 11P (GA9ESG)			
CNS806	1-695-093-11	SOCKET, CONNECTOR 9P			
		< TRIMMER >			
CT801	1-141-227-00	CAP, TRIMMER	20PF (GA9ESG)		
CT802	1-141-227-00	CAP, TRIMMER	20PF (GA9ESG)		

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D801	8-719-987-63	DIODE 1N4148M	(GA9ESG)
D807	8-719-987-63	DIODE 1N4148M	(GA9ESG)
		< IC >	
IC802	8-759-140-53	IC uPD4053BC	(GA9ESG)
IC805	8-759-430-15	IC MB90095PF-G-160-BND	(GA9ESG)
IC806	8-759-916-12	IC SN74HC00AN	(GA9ESG)
IC808	8-759-140-53	IC uPD4053BC	(GA9ESG)
IC810	8-759-341-79	IC LA7217	(GA9ESG)
IC811	8-759-061-95	IC SN761200N	
IC813	8-759-341-79	IC LA7217	(GA9ESG)
IC814	8-759-093-25	IC MB3512PFQ	(GA9ESG)
		< JACK >	
J808	1-766-399-11	JACK, PIN 3P (TV VIDEO OUT, LD VIDEO OUT, VIDEO2 (OUT))	
J809	1-766-399-11	JACK, PIN 3P (VIDEO2 (VIDEO IN), VIDEO1 (VIDEO OUT, IN))	
J810	1-766-400-11	JACK, PIN 2P (MONITOR)	
		< COIL >	
L801	1-410-513-11	INDUCTOR 22uH	(GA9ESG)
		< TRANSISTOR >	
Q800	8-729-119-76	TRANSISTOR 2SA1175-HFE	(GA9ESG)
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF	(GA9ESG)
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF	(GA9ESG)
Q814	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q815	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q816	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q817	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q818	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q819	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q821	8-729-119-76	TRANSISTOR 2SA1175-HFE	(GA9ESG)
Q822	8-729-119-76	TRANSISTOR 2SA1175-HFE	(GA9ESG)
Q826	8-729-900-36	TRANSISTOR DTC124ES	(GA8ES/VA8ES)
		< RESISTOR >	
R800	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R807	1-249-409-11	CARBON 220 5%	1/4W (GA8ES/VA8ES)
R810	1-249-424-11	CARBON 3.9K 5%	1/4W (GA9ESG)
R811	1-249-437-11	CARBON 47K 5%	1/4W (GA9ESG)
R812	1-249-418-11	CARBON 1.2K 5%	1/4W (GA9ESG)
R813	1-249-421-11	CARBON 2.2K 5%	1/4W (GA9ESG)
R814	1-249-409-11	CARBON 220 5%	1/4W (GA9ESG)
R816	1-249-437-11	CARBON 47K 5%	1/4W (GA9ESG)
R817	1-249-437-11	CARBON 47K 5%	1/4W (GA9ESG)
R822	1-249-409-11	CARBON 220 5%	1/4W (GA9ESG)
R832	1-249-409-11	CARBON 220 5%	1/4W (GA9ESG)
R837	1-249-429-11	CARBON 10K 5%	1/4W (GA9ESG)
R842	1-249-433-11	CARBON 22K 5%	1/4W (GA9ESG)
R846	1-247-843-11	CARBON 3.3K 5%	1/4W (GA9ESG)
R850	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R852	1-249-414-11	CARBON 560 5%	1/4W (GA9ESG)
R853	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R858	1-249-414-11	CARBON 560 5%	1/4W (GA9ESG)
R859	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R860	1-249-425-11	CARBON 4.7K 5%	1/4W (GA9ESG)
R861	1-249-433-11	CARBON 22K 5%	1/4W (GA9ESG)
R862	1-247-883-00	CARBON 150K 5%	1/4W (GA9ESG)
R863	1-249-414-11	CARBON 560 5%	1/4W (GA9ESG)
R864	1-249-437-11	CARBON 47K 5%	1/4W (GA9ESG)
R865	1-249-414-11	CARBON 560 5%	1/4W (GA9ESG)
R866	1-249-403-11	CARBON 68 5%	1/4W
R867	1-249-424-11	CARBON 3.9K 5%	1/4W (GA9ESG)
R868	1-249-403-11	CARBON 68 5%	1/4W
R869	1-249-403-11	CARBON 68 5%	1/4W
R870	1-249-426-11	CARBON 5.6K 5%	1/4W
R871	1-249-426-11	CARBON 5.6K 5%	1/4W
R872	1-249-426-11	CARBON 5.6K 5%	1/4W
R873	1-249-403-11	CARBON 68 5%	1/4W
R874	1-249-403-11	CARBON 68 5%	1/4W
R875	1-249-403-11	CARBON 68 5%	1/4W
R876	1-249-419-11	CARBON 1.5K 5%	1/4W
R877	1-249-419-11	CARBON 1.5K 5%	1/4W
R878	1-249-419-11	CARBON 1.5K 5%	1/4W
R879	1-249-403-11	CARBON 68 5%	1/4W
R880	1-249-403-11	CARBON 68 5%	1/4W
R881	1-249-403-11	CARBON 68 5%	1/4W
R882	1-249-403-11	CARBON 68 5%	1/4W
R883	1-249-403-11	CARBON 68 5%	1/4W
R885	1-249-403-11	CARBON 68 5%	1/4W
R888	1-249-430-11	CARBON 12K 5%	1/4W
R889	1-249-430-11	CARBON 12K 5%	1/4W
R890	1-249-430-11	CARBON 12K 5%	1/4W
R896	1-249-429-11	CARBON 10K 5%	1/4W (GA9ESG)
R898	1-249-429-11	CARBON 10K 5%	1/4W (GA9ESG)
R899	1-249-417-11	CARBON 1K 5%	1/4W (GA9ESG)
R8003	1-247-883-00	CARBON 150K 5%	1/4W (GA9ESG)
R8004	1-249-424-11	CARBON 3.9K 5%	1/4W (GA9ESG)
R8005	1-249-414-11	CARBON 560 5%	1/4W (GA9ESG)
R8009	1-249-409-11	CARBON 220 5%	1/4W
R8010	1-249-409-11	CARBON 220 5%	1/4W

VIDEO VOLUME

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV801	1-241-766-11	RES, ADJ, CERMET 47K	(GA9ESG)
		< VIBRATOR >	
X803	1-527-722-00	OSCILLATOR, CRYSTAL (14.318MHz)	(GA9ESG)
X804	1-579-583-11	VIBRATOR, CERAMIC (503.5KHz)	(GA9ESG)
X806	1-579-583-11	VIBRATOR, CERAMIC (503.5KHz)	(GA9ESG)
*	1-661-563-11	VOLUME BOARD	
		< CONNECTOR >	
CNP107	1-770-389-11	PIN, CONNECTOR (PC BOARD) 5P	
CNP108	1-770-388-11	PIN, CONNECTOR (PC BOARD) 4P	
		< VARIABLE RESISTOR >	
RV501	1-225-232-11	RES, VAR, CARBON 100KX6 (MASTER VOL)	
		MISCELLANEOUS	
⚠74	1-569-008-21	ADAPTOR, CONVERSION 2P	(GA8ES:E, EA, PX/VA8ES:CH)
⚠CNP901	1-559-479-11	CORD, POWER (US, CND)	
⚠CNP901	1-690-608-11	CORD, POWER (AUS)	
⚠CNP901	1-776-095-11	CORD, POWER (GA8ES:E, EA, PX/VA8ES)	
⚠CNS901	1-251-078-11	OUTLET, AC. (AUS)	
⚠CNS901	1-526-794-11	OUTLET, AC (VA8ES)	
⚠T1	1-429-587-11	TRANSFORMER, POWER (US)	
⚠T1	1-429-588-11	TRANSFORMER, POWER (GA8ES:E, EA, PX)	
⚠T1	1-429-591-11	TRANSFORMER, POWER (VA8ES)	
⚠T1	1-429-592-11	TRANSFORMER, POWER (AUS)	
⚠T1	1-429-595-11	TRANSFORMER, POWER (CND)	
		HARDWARE LIST	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-103-19	+ PTPWH (2X5)	(GA9ESG)
#4	7-685-102-19	SCREW +P 2X4 NON-SLIT TYPE 2	(GA9ESG)
#5	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	(GA9ESG)
#6	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
	1-473-629-11	REMOTE COMMANDER (RM-P362)	(GA8ES/VA8ES)
	1-501-594-11	ANTENNA (FM)	(AUS)
	1-501-662-11	ANTENNA (REMOTE CONTOROL)	(GA9ESG)
	1-501-721-11	ANTENNA (LOOP)	(GA8ES/GA9ESG)
	3-856-158-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	(VA8ES:AEP, UK, G, IT)
	3-856-158-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE)	(VA8ES)
	3-856-159-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	(GA9ESG)
	3-856-160-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	(GA8ES)
	3-856-160-21	MANUAL, INSTRUCTION (SPANISH)	(GA8ES:E, EA, PX)
*	4-964-565-11	CUSHION	(GA9ESG)
*	4-972-386-01	CUSHION	(GA8ES/VA8ES)
*	4-982-240-01	INDIVIDUAL CARTON	(GA8ES)
*	4-982-241-01	INDIVIDUAL CARTON	(GA9ESG)
	4-983-536-01	LID, BATTERY CASE (for RM-P362)	(GA8ES/VA8ES)
*	4-985-759-01	INDIVIDUAL CARTON	(CH, MY, SP)
*	4-985-760-01	INDIVIDUAL CARTON	(AEP, UK, G, IT)
	8-917-208-90	REPEATER, IR RM-IR100 SET	(GA9ESG)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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